AMERICA IN SPITSBERGEN

THE ROMANCE OF AN ARCTIC COAL-MINE

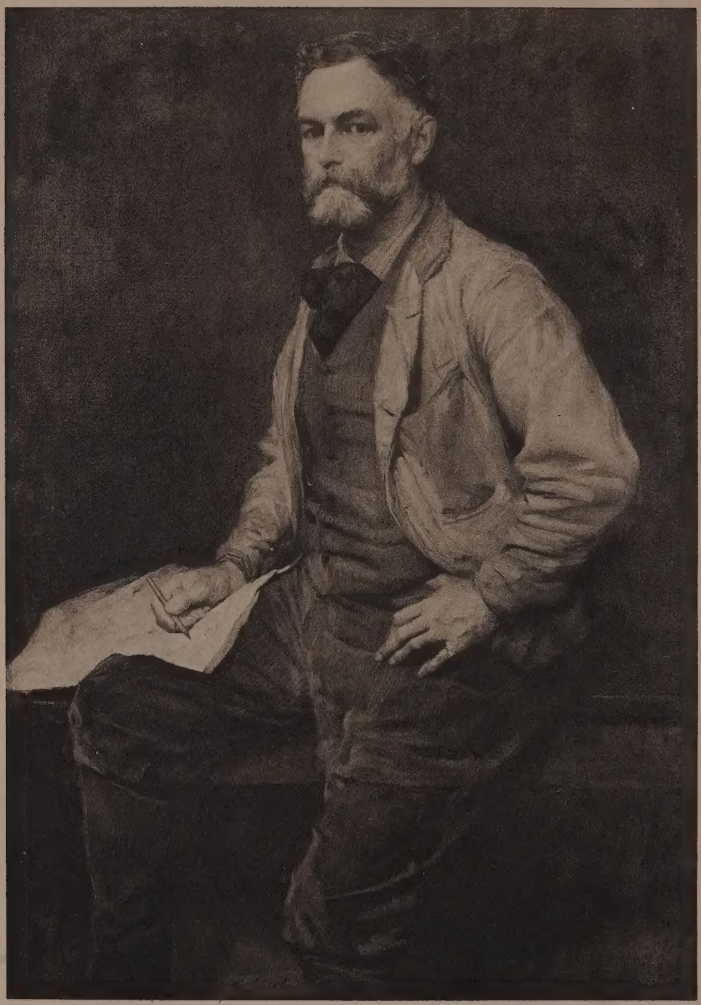
VOLUME II

Ἡ δ' ἐς πείραθ' ἵκανε βαθυρρόου Ὠκεανοῖο.
Ἔνθα δὲ Κιμμερίων ἀνδρῶν δῆμός τε πόλις τε,
ἠέρι καὶ νεφέλῃ κεκαλυμμένοι· οὐδὲ ποτ' αὐτοὺς
Ἠέλιος φαέθων καταδέρκεται ἀκτίνεσσιν,
οὔθ' ὁπότ' ἂν στείχῃσι πρὸς οὐρανὸν ἀστερόεντα,
οὔθ' ὅτ' ἂν ἂψ ἐπὶ γαῖαν ἀπ' οὐρανόθεν προτράπηται·
ἀλλ' ἐπὶ νὺξ ὀλοὴ τέταται δειλοῖσι βροτοῖσιν.
νῆα μέν, ἔνθ' ἐλθόντες, ἐκέλσαμεν.

(Ὀδυσσείας λ: ιγ'—κ')

NOW *we came to the deep-flowing Ocean's ultimate bound,*
where the Kimmerians' gloomy tribe and city are found
wrapt in perpetual clouds; nor ever on them looks the Sun
shining with glorious beams as his marvellous journey is run,
whether he mount to the sky all spangled with stars without end,
whether he turn him agen from the sky to the earth to descend;
but the baleful Night broods over the children of wo.
Thither we ran the ship.

ODYSSEY: *Book* XI, 13-20



AMERICA IN SPITSBERGEN

The Romance of an Arctic Coal-Mine

WITH AN INTRODUCTION RELATING THE HISTORY AND DESCRIBING THE LAND AND THE FLORA AND FAUNA OF SPITSBERGEN

BY
NATHAN HASKELL DOLE

IN TWO VOLUMES
VOLUME II

BOSTON
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MDCDXXII

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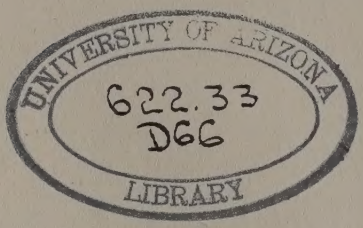

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AMERICA IN SPITZBERGEN

THE ROMANCE OF AN ARCTIC COAL-MINE

VOLUME II

America in Spitsbergen

VIII. GERMAN VISITORS TO SPITSBERGEN

1. GIBSON AND THE TRESPASSERS

MR. COULSON'S careful study of the conditions of coal-mining in Spitsbergen, and particularly of the works at Advent Bay, resulted in a report which was eminently satisfactory. The additional machinery recommended by him for making the "plant" more effective and more economically productive, was ordered during the winter, most of it in England, that country being nearer than the United States or Germany when repairs should be needed.

Gibson, the new general manager, sailed from New York on January 8, 1910, stopping in London and Sheffield for ten days to arrange for the shipment of the equipment. While at Sheffield, he received a confidential memorandum in regard to the possibility of the Arctic Coal Company's purchasing the Advent Bay possessions of the Sheffield Company, which certified that their mine was actually in a position to turn out two hundred tons of coal of very good quality per day from a seam more than a meter in thickness, with machinery and plant capable of producing a much larger output as the pit was opened up. "There is no trouble with water, gas, or black damp," said the writer; "neither are there any engineering difficulties, so that if not less than, say, twenty thousand tons of coal per annum are turned out, the cost of production and standing charges are reduced to such a figure as to allow of a profit being made.

"All the houses are fitted with electric light, and the mine is ventilated by a large electric fan; but there is only one electric coal-cutter at work, so that it would be desirable to get

another machine of the same type; and with regard to the loading of vessels in deep water, a further sum of eight hundred pounds would have to be spent to extend the pier to a point where large ships could come alongside. The machinery already erected consists of: gas-producer plant and three forty horse-power gas engines; complete electrical plant for lighting and power; electric fan; motors for driving lathes; saws and tools; electrical coal-cutter and seventy pit-tubs; colliery stores, including picks, shovels, hammers, rope, oil, timber, explosives, and Wells light-apparatus; food stores and furniture, household utensils, clothes, thirty tons of rails, and five seventy-ton lighters; and many other tools and apparatus for mining."

The death of the manager and prime mover in the whole scheme was given as the reason for the readiness to sell this perfect plant. The Arctic Coal Company wisely considered that it had enough problems on its hands without adding to the difficulties of its own big establishment; the offer was not accepted.

The Hjorth Syndicate. Gibson arrived at Trondhjem on January 26. Having sent the *William D. Munroe,* which had been in the roadstead since October of the previous year, to be drydocked at Kristiansund and put into thorough repair, he was free to take up the battle with the Green Harbor trespassers. He was thoroughly conversant with the whole wretched business, and was ready to meet their juggleries with the same weapons as Burrall had been employing. He went to Kristiania, but failed to find there either Herre Hjorth or Minister Peirce, though he had a pleasant interview with the Chargé d'Affaires, Langhorne, who was in control at the Legation. Hjorth had been to consult with this friendly official and had written him a letter embodying the claims and complaints of the syndicate, with various documents to show that they had "indisputably, *as the first,* claimed and taken in possession this land which Ayer and Longyear was unjustly claiming. When their property extends *from* this point—namely their house at Green Harbor—and in the direction to Coal Bay, which is situated in northeasterly direction," he

asked, "how can Messrs. Ayer and Longyear claim the land ten kilometers in southerly direction and on the south side of the flat and broad Green Harbor Valley (Rendal)?"

Hjorth filed with the Legation a declaration, signed by three men, to the effect that on June 9, 1909, when they arrived at the tract of land annexed by Kandidat Adolf Hoel in Green Harbor, Spitsbergen, they discovered no posts placed by others; neither could they "by later going over the ground discover any posts before those placed by Hoel," and they were willing to swear that the tablets put up by the American firm were not there before July 1, 1909. Gibson was confident that while Burrall certainly placed certain stakes on or about that time, yet the property had been properly marked since 1905.

Gibson's Interview with Hjorth. On February 8, Gibson was at Kristiania again and called on Herre F. Hjorth. He had an amicable conference with that recalcitrant trespasser who based his claim to the Green Harbor property on the sign on the Ayer and Longyear house which, in his mind, showed possession only to Coles Bay, and on the fact that the American map took in the territory claimed by the whaling company. Gibson refused to argue that matter with him, telling him that it concerned not him but the whaling company. Hjorth also claimed that Ayer and Longyear had no stakes on the property claimed by him. Gibson assured him they had, and argued that even if they had not, the descriptions on the stakes set at the most prominent points in the harbor distinctly stated that they claimed all the shore-front property between those stakes, that the descriptions were written by Munroe who had filed them in Washington, and that Hjorth himself had acknowledged this in 1908. Hjorth was bland and agreeable, and, while insisting that he was very desirous of having the question settled as soon as possible, he was stubborn in asserting that he should keep a force of men on Spitsbergen continuously winter and summer until it should be settled.

Gibson's Letter. Gibson followed this interview up with a letter to the Hjorth Syndicate, in which he said:

"Under date of April 8, 1909, Mr. E. P. Burrall, the director of the interests of Messrs. Ayer and Longyear in Europe, notified you that he had heard through newspaper reports that you were about to send an expedition to Spitsbergen for the purpose of taking up lands. He enclosed in this letter a map showing the property owned by Messrs. Ayer and Longyear since 1905, and occupied by miners in their employ since that date. Having heard indirectly that men representing your interests had placed sign posts on a portion of our property during the summer of 1908, Mr. Burrall visited the property on June 6, 1909, and with two others made a careful and diligent search, but could find no evidences whatever of signs, posts, notices, or work of your representatives.

"On June 22, 1909, our engineer in charge of our property at Green Harbor saw four men go in over the ice toward the portion of our property you now claim, and on the following morning he visited this place, but the men he had seen the day before had left; however, he found in several places notices to the effect that the property was claimed by F. Hjorth, of Kristiania, with a date of 11/7/1908. On July 1, 1909, our engineer again observed four men going in the direction of this portion of our property, and he immediately followed; he found them to be men in your employ, and notified them that they were trespassing on our property, and took occasion to point out to your foreman that portion of the island belonging to us, and protested against his starting or doing any work on our property.

"Under date of September 4, 1909, Mr. Burrall wrote you that he had heard you were sending material to Spitsbergen for the purpose of erecting a house on our property. He protested strongly against this, and notified you that should such building be erected, we would remove same at our convenience. In the face of this protest you started the construction of the house.

"As above stated, your Mr. F. Hjorth informed me on March 15, that the house had not been completed last Fall,

but that you contemplated shipping material to Spitsbergen this summer for the purpose of completing the building. I wish again to protest against your doing any work whatever or constructing any kind of house or tent on our property, and further wish to notify you that any further attempt to trespass on our property will be done so at your own peril, and that you assume the responsibility of any action we may think necessary to protect the property that we have so long been in notorious and undisputed possession of."

HJORTH'S REPLY. A few days later Hjorth replied, politely stating that Gibson's "est. favor was to hands," but hotly denying that Ayer and Longyear's miners had duly "occupied since 1905 this land," as he could prove by "Witnesses, reliable people of science, who are living here in Kristiania, who personally have visited these tracts several summers." He ended with this rather bumptious challenge: "I have people on the tracts this winter for the working and watching them, and I will make our houses and buildings ready this summer. Some of the materials for the house had to be thrown overboard owing to a heavy storm, which was the reason that we could not have the house ready last summer. That these tracts have been in your 'notorious and undisputed possession' since 1905 is not right. You, Mr. Gibson, who are unknown with this matter, have been wrongly informed, and we can prove that. We will continue our work, and leave the further matters re these things to the Utenriksdepartement."

2. DEALINGS WITH THE HJORTH SYNDICATE

About the middle of March, Gibson, at the suggestion of a letter from Ayer and Longyear, again went to Kristiania and had another interview with Hjorth, who, while most pleasant, was obstinate "in sticking to the property to the last." Gibson reported that he was a man "of considerable means after the Norwegian standard of rating," and would undoubtedly ignore all protests and would continue to trespass until removed by force.

It had been suggested to Ayer and Longyear that one way of coping with him might be by their so completely occupying the land that there would be no room for squatters or trespassers, but Gibson showed what an impossible proposition this was, since they had more than seven and a half miles on Green Harbor alone, and the season before these trespassers had started work within about one hundred and fifty feet of where their men were working, and later had begun to work in a pit where the Ayer and Longyear men had proved the presence of coal, having left it only to prove the coal at another point. Gibson did not think, either, that a demand on the American Minister would help to get rid of the trespassers, for the reason that Mr. Peirce had always insisted that Ayer and Longyear must be in undisputed possession, and that they had a right to eject trespassers by force. The Hjorth Syndicate would be chartering a ship as soon as navigation opened and would send materials for the completion of their house at Green Harbor and a number of men to keep up the farce of prospecting.

Two Methods of Action. Gibson saw only two methods of dealing with these squatters: one was to fight them on their records; the other was to use force. If the first method were adopted—that is, of making protests and filing them with the American Minister, and requesting him to "protest to the trespassers' Government against its citizens' trespass," he thought nothing would immediately come of it, but it would give "a complete set of records to go into court or before an arbitrating body."

On the other hand, if they were to use force, especially in ejecting Norwegians, he thought it would be important not to employ men of that nationality, to take part in proceedings that might involve physical injury, for then it would be the moral duty of the firm to defend them in the courts of Norway in case they were prosecuted, and that would cause both trouble and expense. He therefore proposed, if this line were adopted, to engage in America a certain number of men "well up in years" and experience in handling such situations as

might arise, men "capable of handling twice their number without the use of weapons."

COURTS OR FORCE. Personally, Gibson preferred to fight the matter in the courts, but he was perfectly willing to assume personal responsibility in the use of force, and he outlined a provisional plan for this method as follows: He would engage four men to come from America with the mine foreman, and joining company with Gilson and himself—making seven in all—proceed to Green Harbor on the first trip of the *Munroe*. and "quietly remove the house that had been started, and load all the Hjorth men and provisions on sledges and carry them across the harbor. Then Ayer and Longyear would be in undisturbed possession, probably for the summer, for, as Hjorth would send only boards to complete the house with, "his ship would have to return to Norway for timber, and more than likely for advice." At the end of the summer it could be decided what weapons Hjorth would use to enforce his shaken claim.

EXTRA COST OF AN ARMED GUARD. The four men thus imported from America, being familiar with mine-work, could over-winter at Advent Bay, learn Norwegian, and serve the next year as extra deputies and foremen such as the growing mine would require. The extra cost of this plan, "making no allowance for the training of future officials or the superiority over the Norwegian workmen," would cost, according to Gibson's estimate, a total of forty-eight hundred dollars more than would have to be paid for Norwegians."

Of course, violent measures were not in the scheme of things as envisaged by the Arctic Coal Company or by Ayer and Longyear; but Gibson's forceful proposal is interesting in showing his resourcefulness. He had in mind four mining men who would be capable of doing battle, and required only time sufficient to cable them to come, and he was certain that they would come. This drastic method would, of course, apply only to such interlopers as Hjorth and Anker, who evidently had no moral right to be occupying the lands of Ayer and Longyear.

Mr. Longyear immediately replied that he preferred to fight the question through legal channels, and Gibson was much relieved, for he felt that it would give them an uninterrupted season on the island which was very greatly needed, and if they should start in to use force, it would be hard to tell to what point they would have to go.

Proposed Relinquishment of Territory. Mr. Longyear suggested that it might be advisable to relinquish the pieces of property at Sassen Bay and Cape Boheman, where the value of the coal-deposits was problematical. Minister Peirce informed him that the Norwegian Minister had raised considerable objection to the amount of territory claimed by the Americans, and Mr. Peirce thought it would strengthen his hand a good deal in negotiating with the Norwegian Government if their claims were cut. The Ministry looked askance at foreign company's possessing such enormous stretches of land* to the exclusion of Scandinavians. He ignored the fact of large tracts of unclaimed areas of coal-bearing territory on the island. Gibson wrote that he himself was con-

* Superficially, the territory acquired on Spitsbergen by the Arctic Coal Company and by Ayer and Longyear was large, but it must be taken into consideration that the seams or strata of coal were thin—not generally exceeding four feet—so that the area had to be extensive. Moreover, the expense of conducting mining-operations there was relatively far greater than in regions where a thickness of more than a hundred feet of pure coal is not uncommon. Vast reserves were requisite to justify the employment of capital sufficient to overcome the incessant difficulties connected with coal-mining in distant islands lying so far away in hyperborean seas, always threatened with ice-blockades and with disaster likely at any moment to overtake the shipping engaged in the transport of the hard-won product. It may well be doubted if Norwegian enterprise would for many years have ventured, unaided from abroad, to carry out any such project on a large scale in the carboniferous mountains of Spitsbergen. It required more knowledge and better methods than were at the service of Hjorth and Schröder and Anker and all their Aktieselskaber! Even the lavish expenditures of the experienced Americans, using every modern scientific invention, were not able in a decade to do more than prove that only by disposing of at least two hundred thousand tons of coal a year would any profit—and a small profit at that—quite incommensurate with the effort—accrue to the investment.

ON ADVENT BAY

vinced that it would decidedly improve the company's position without impairing the value of the property.

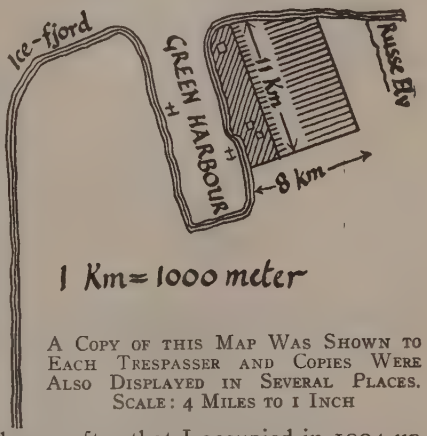
3. THE SCHRÖDER CLAIM

Andreas Schröder's claim seemed to be developing on rather dangerous lines. Under date of January 18, 1910, he had written to Ayer and Longyear through his Sakfører, or attorney, Emil Melle of Tromsø, in imperative terms:

"As owner and first occupant of the coal-lands on east side of Green Harbour in Icefjord, Spitzbergen, I beg to inform you that I am going to sell to a Mining Company my rights in Green Harbour, and if you should fail as soon as possible to make satisfactory arrangements with me your houses and things by me or the new owner will be moved away as soon as we get there next (the coming) summer.

"Your houses have been built during 1908 and '09 inside the fence erected and established by me in 1900. My occupation and fence includes the whole east side of the fjord, from three hundred meters east of the northward Næs on east side of the fjord and in along the fjord passed the harbour, length eleven thousand meters and breadth eight thousand meters.

"In 1900 I occupied from sea up to the useless high rocks and put a fence: wire on iron posts at an accurate distance between posts of fifty meters, and all posts with inscription. The fence (see sketch) was formed, and we took the land between sea and highest mountains from the Næs eleven kilometers, in the fjord, passed the harbour; after that I occupied in 1904 up to a line eight kilometers from the fjord and length eleven kilo-



A Copy of this Map Was Shown to Each Trespasser and Copies Were Also Displayed in Several Places. Scale: 4 Miles to 1 Inch

meters as before, lots of posts with inscription. All the land round the only harbour on the east side of the fjord belongs to me. Your new Kaptein Nas of Trondhjem and Ingeniør Burle know my rights in Green Harbour; the first knew them from the first time he came to Spitzbergen to take land, and the latter from last summer, when he was there, he was fully informed by Ingeniør Reitan. My rights in Green Harbour have been maintained all the time since the occupation.

"In 1900 I built my house, and my occupation have been reported to the Government, and all usual formalities have been paid attention to. Everybody else have respected my rights, and as it also is the rule that the private right of possession is respected on Spitzbergen when continually maintained, I hope you will do the same. I may also mention that land in private possession on Spitzbergen for years have been subjected to conclusion of bargains.

"I therefore hope you will understand and respect that I also with regard to you must maintain my rights in Green Harbour. I hope you will as soon as possible move away your things; if not, I must move them outside my fence and occupation posts and property myself."

The American Minister seemed impressed by Schröder's representations, and while he refused to admit this point to the Norwegian Government, yet informed Gibson that privately he thought a visit once a year would be sufficient to hold the property, and that he considered the claim to be very strong.

Schröder and Hjorth in Collusion. Gibson was convinced that Schröder had made common cause with Hjorth, not with any view to mining coal on their united claims, but rather to compel Ayer and Longyear to buy them both off. Under date of May 14 he wrote the American Company that he had again been in Kristiania and conferred with the American Minister, who, he thought, had got the matter more clearly in his mind and understood better than before how it stood. The Norwegian Government had furnished the Embassy with copies of all the Norwegian claims, and Gibson had gone over them with him, furnishing him with rebutting testimony,

"setting forth the points they could bring out to cover these claims and a note as to where they could be found. He said:—

"There were no points presented by any of the trespassers that we cannot meet and prove our priority and more development, and I do not think that the Hjorth or Anker claims will give us much trouble, but the Schröder claim looks serious to Mr. Peirce, and if his view is correct it may prove very serious."

Work Done and Money Spent. This claim was backed by the contention that in 1900 he had formed a stock-company incorporated in Kristiania for the purpose of mining coal on Spitsbergen. He asserted that he had prospected for coal during the Summer of 1901, and taken up an additional depth toward the interior of the island. During that season thirteen thousand kroner had been spent. But though the Company had refused to spend any more, and had been dissolved, yet Schröder claimed to have visited his property every year, had built three houses and had mined and brought back coal during the seasons of 1908 and 1909.

Gibson reiterated his conviction that no one in Norway knew anything about such work or that any men had been left by Schröder at Green Harbor; on the other hand, he was probably going to assert that the men left by Hjorth were in his service.

The American Minister advised Gibson to have more men at Green Harbor than Hjorth had, and to remove his house from the property, this advice coinciding with his recommendations to Mr. Longyear the Summer before, but on the question of Schröder's claim he took a different tack. Gibson wrote:

Gibson's Letter. "Mr. Peirce is very anxious for our Company to buy his [Schröder's] claim, and I will make an endeavor to see him on this trip North, but I feel confident that he has joined Hjorth and that we cannot talk business with him. My actions toward him will, of course, be governed by the stand he takes when I see him, and I will make an effort to see Hjorth's men before they get there this year, and

in some way make them admit that they are in Hjorth's employ.

"With Mr. Peirce I took the stand that if he [Hjorth] staked out the claims in 1900, first he did not notify the Norwegian Government, secondly he abandoned the property after a little work one season, and that, contrary to what he claims, he has done no work whatever on this claim since occupation in 1905. He is a fisherman, and if he has visited the property each season (and of course we cannot prove that he has not visited it), he has done so from his whaling or sealing trip and not with any idea of mining on the property."

Nilssen's Claim. Gibson easily established the fact that the property claimed by Schröder was "identical with that claimed by A. E. Nilssen (Coal Mining Company, Ice Fjord), but with an additional depth toward the interior of the island." This additional tract was taken over for the reason that the part once fenced in was "absoluely useless for mining purposes," as it had a depth of only a few hundred meters from the shore, and did not extend even so far as the seam of coal which Ayer and Longyear were actually working.

Gibson shortly afterwards met Schröder and Schröder's attorney at Tromsø, but could get nothing definite from him except a reiteration of his written statement. He found that Schröder bore the reputation of "being absolutely unreliable"; the truth was not in him.

"I find," wrote Gibson, "that Schröder was with Nilssen on all of his expeditions, and was given a share for his services when the Coal Mining Company Ice Fjord was formed. This claim has always been treated in Nilssen's name, and under date of September 1, 1909, Nilssen offered for sale all company's holdings describing them as being inclosed in the wire fence. The claim included in the wire fence is absolutely worthless for mining, as it does not extend even to the outcrop of the coal, and there is therefore no coal on this part of the property.

"Nilssen has not been to the Island since 1901, and there-

fore could make no claims, but as Schröder has been there a number of years, and is willing to swear that he has been there every year, his occupation being making curios from whale-bones to sell the tourists, they have put the claim in his name. They have, of course, learned that the original claim does not include any coal, and have therefore decided to claim additional depth.

"Schröder, in his letter to you of January 18, 1910, and in our conversation, states that he took up this additional depth in 1904, by staking it at the corners, but he placed no notice anywhere along the shore front of this addition nor is there any written record of this anywhere. I can find no one that knows anything of this addition previous to the past Winter. While I cannot prove the point, I feel confident this addition was never thought of until this Winter in Tromsø upon consultation with the other trespassers."

Schröder informed Gibson that his foreman was Daniel Nøis, that he had employed three men working there at Green Harbor, and that Nøis had been foreman when Schröder's house was built in 1909. Gibson enclosed copy of a statement from Nøis endorsed by three witnesses, which showed absolutely that he had not been at any time connected with Schröder, and that the house was owned by him personally. Nøis wrote:

Nøis's Denial. "I fitted out my expedition entirely on my own account, purchasing all supplies, and on returning to Norway I will sell the result of my catch for my own account. The house built by me in September, 1909, near the intersection of the east side of Green Harbor and the south side of Icefjord and near the mouth of Russian River, was built by me for my expedition's use during the Winter, and was not put up under an agreement of any kind in the interest of any other party or parties.

"Myself nor any member of my expedition have engaged in any business during the year other than hunting, digging coal to burn in my house, and acting as guides for the representatives of Ayer and Longyear.

"I have not entered into any agreement whatever with Chr. Schröder, of Tromsø, nor have myself or any of my men done any work of any description whatever for him during the Winter just past."

Gibson judged that it would be advisable to buy Nøis's house, which was located at a point where the Company needed one for the purpose of communication between Advent Bay and Green Harbor. The bill of sale is preserved both in Norwegian and in the queer, bastard English which seems to pass muster in Norway as "a correct version" by authorized interpreters and translators of foreign languages. It was not a luxurious habitation: one hundred kroner ($27.00) paid him amply for it!

4. PREPARATIONS FOR THE SEASON

Meantime the *Munroe* had been put into thorough repair for her summer campaign. New ice-sheathing was overlaid; the machinery was overhauled and repaired where necessary; hulk and rigging were scraped and painted; a rearrangement of cabin-accommodations was devised so as to give several convenient staterooms, and every attempt was made to conform the vessel and her boats to the somewhat captious demands of the Norwegian insurance company, Veritas. On her return to Trondhjem, spick and span, the stores bought in America and England, brought by the Wilson Line ships, were transferred directly to her as they arrived, so as to save expense of storage and customs duties. This method was later applied to the shipments of machinery.

Selection of Men. Gibson had been taking his time in engaging the men to work in Spitsbergen during the Summer. Practically every man who had been there the preceding year reported for service again and he needed only to take on additional men as an increased force. It had been a bad year in Norway; he had an exceptionally large number to choose from, and was satisfied with his selection as far as the laborers, miners, and ordinary mechanics were concerned; but he was experiencing difficulty in getting hold of satis-

factory men to take charge of the machinery. This was extremely important: "The success or failure of the winter work on the Island," he wrote, "depends almost entirely on the question of keeping the machinery in good running order, as it is out of the question to get the coal by hand with the labor we have, on a commercial basis."

Besides this matter of properly running the machinery, the difficulty of securing water during the Winter was serious, because of the cost in hauling ice and of the coal consumed in melting it.

In view of the impossibility of finding such a man in Norway, Gibson wrote to a mechanic named Hamilton, who had charge of all the machinery at the mines under his supervision in America. "This man," he said in justification of this step, "is one who has risen from the shop and is a graduate of the Carnegie Institute Night School at Pittsburgh and also of the Scranton Correspondence Schools. I can say for him that he is the best and most practical machinery man I have ever met around the mines, and is equally capable in steam and electricity. He will be a rather high-salaried man for a small plant to carry, but he will fill the place of two men, and the mine will always have the benefit of operating under the schemes he works out the first Winter."

Gibson realized that every nerve would have to be strained to install all the machinery during the Summer and have it ready to start for the winter crew. He thought Hamilton would come over for the same salary as he was receiving from the United Coal Company, and he proposed, if he could secure him on those terms, to have him accompany Baldwin, the mine foreman who had already been engaged. He said:

"With these two men on the Island I feel that we shall have men as capable in their lines as it is possible to procure, and I am sure this will demonstrate just what we can accomplish on Spitsbergen in the Winter." He proposed to retain Mangham as Superintendent because of his experience and of the valuable confidence which he had inspired in the Winter force.

The proposition was agreeable to the Company, and Hamilton was engaged as master-mechanic on the installation of the machinery and its operation for a year, or as long as it should be considered necessary to retain his services. He sailed for Norway on May 28 in company with B. F. Baldwin, who went as mine foreman. He was to have a trip to America in summer or winter according to the convenience of the Company. Of course the expenses of the journey were paid by the employers. Baldwin was regarded as capable of taking charge of the mine and property in case Mangham for any reason should fail them. A coal-cutter, experienced in operating American machinery, was engaged by Gibson and expected to accompany the other two men, but was at the last moment prevented by the illness of his wife from taking passage, and as time was pressing an English coal-cutter was engaged in his place.

5. MORE TROUBLE WITH SQUATTERS

The *Munroe* sailed on her first spring trip to the North on May 14 with Gibson and seventy-five employees. On the first day out one of the men died from heart failure, brought on by excessive drinking before he boarded the ship. He was on deck apparently well but still intoxicated. He went below and told his mates that he felt weak and would like to see the doctor; he was dead before the doctor got to him.

They arrived at the edge of the ice-pack on the fifth day out from Trondhjem, about midway between South Cape and Bear Island, and were forced to skirt the ice for three days, at the end of which time they managed to force their way through, and when they headed toward the land, after being in the scattered ice for two days longer, they found themselves directly west of the entrance to the Ice Fjord. The winter ice had been broken up by a recent storm, but the wind was such that the captain thought it unsafe to enter, so they made fast to the pack about five miles from Advent Bay.

In the Ice-pack Again. The foreman with three miners and a cook, who had been over-wintering at Green Harbor,

as soon as they sighted the ship, made their way out to it across the ice. The foreman reported that they were all in the best of health and had passed the Winter without serious illness or any contentions on the part of the men. They had driven Mine No. 1 a distance of one hundred and fifty feet, increasing its total length to five hundred feet. Mine No. 2, which had been opened the Summer before, had reached a depth of one hundred and fifty feet also, but as the coal was not satisfactory Gibson ordered the work there discontinued.

An Overland Trip. As he was in haste to reach Advent Valley, and the wind still made it unsafe to move the ship, he started for the Longyear Valley camp accompanied by five men on skis with a sledge-team of three dogs, conveying the mail-sacks and food for the party. It was impossible to travel on the ice in the fjord, so the trip was made overland—"a very difficult journey owing to the number of gulches to be crossed." After they started, the wind changed and they might have spared themselves the trouble, for the *Munroe* arrived at the edge of the fast ice four miles from the camp only a few hours after they arrived at the camp.

Gibson duplicated the Green Harbor report. He found Mr. Mangham, the winter superintendent, and all the men were enjoying the best of health, and were in high spirits, there not having been one single instance of serious illness, serious breach of discipline, or material contention between the officials and men during the entire Winter.

Making Ready. All the men were immediately set to work to make ready for the installation of the machinery, which was to come on the second trip. The power-house was completed, and the surface tramway from the dock to the camp was relaid on a broader gauge. A jinney-track was also continued from the camp up to the mine on trestles; these were built five feet from the ground to avoid the snow. This convenience, operated by an electric haulage-gear, was to be utilized for carrying provisions and the men up to the mine, and it was thought that it would increase the working-

capacity about ten per cent as it reduced the time of transit from forty or forty-five minutes to three.

As the *Munroe* could not attain a point nearer than four miles to the dock, all the provisions and general freight amounting to more than twenty tons were unloaded on the ice and hauled ashore. This was accomplished in twenty-eight hours. Then the ship, taking the winter force from both mines, sailed for Trondhjem where, after a trip of seventeen days, she arrived on the evening of May 31.

A Fault in the Mine. Gibson, on reaching Trondhjem, wrote to the Boston office, giving a brief account of conditions at Spitsbergen, as he had found them. The only dark spot in the horoscope of the mine was that the last sixty feet of the Winter's extension of nearly nine hundred feet in the main-entry, cut through very faulty coal. It was not a wholly sinister omen, however, fo rthe gates on the right-hand side, having been worked through this fault, were beginning to show the former quality of coal. Gibson said:

"Of course when these faults occur there is no definite way of telling their extent, but this one has every appearance of being very small and of no more consequence than those met with in every coal-mine."

He had good hopes that by Autumn they would have passed beyond this one and found the coal "in good shape on the line of the main-entry." The Winter's hand-work was so encouraging that he felt certain that even if the new machinery should go wrong at any time, they could take out all the men from the narrow places and set them to work on the long-wall face and by hand-digging, get the coal out at cost. Under any conditions, the winter crew could support itself and not be an expense, while if they could keep the machinery in working-order "and with half a chance" the winter coal could be produced on a fair margin of profit.

Gibson enclosed a copy of a letter which he had written to Captain Isachsen, Chief of the Norwegian Scientific Expedition.

Free Coal to Captain Isachsen. Burrall, as will be remembered, had promised him a hundred tons of coal to be delivered as desired at any time the preceding summer; only eighty-nine tons had been called for. Gibson had intended to deliver the other eleven tons to him free during that Summer; appreciative of this generosity, Captain Isachsen reminded him that a hundred tons had been promised for the second year; Gibson replied that although he was in some doubt as to whether either Burrall or Mr. Longyear had intended to continue the gratuity, he "would assume the responsibility of allowing one hundred tons the second year, provided the expedition was strictly scientific and that he would agree not to carry any person or persons except those pertaining strictly to his expedition."

Isachsen solemnly assured Gibson that such was "not only his intention but his duty to the Government;" he explained that the reason for his having brought down certain men the previous year was that "they were not prepared to over-winter, and that he had done it from a humane standpoint only."

Isachsen's Double-crossing. Gibson now knew that Hoel, "the man who took up certain claims in trespass on Ayer and Longyear's lands and had turned them over to Hjorth" was one of the men connected with Isachsen's expedition. He believed that the interests in the name of Hoel were owned by Isachsen. In his letter he said:

"You will note from my letter to him that he seems very much interested in the Green Harbor claims, and I feel that by giving him coal we are furnishing means to fight our claims. I had a conversation over the 'phone with him this morning (June 3), after he had received my letter, and he was of course very much grieved and hurt that we should think such things of him, but nevertheless he will have to produce something more tangible than his word before we can allow him any free coal."

Gibson found out also that during the Winter he had gone up to Tromsø to advise Schröder to join with all the

other Norwegian claimants in the conspiracy against the American owners. Moreover, Captain Isachsen had suggested to Schröder to hold on to his claim, pretending that he had given an English Company an option. That explained why, when Gibson, in his interview with Schröder in May, had asked him what he would sell for if on investigation it was proved definitely that Schröder's claim was valid, and if Ayer and Longyear were then willing to buy him out, Schröder had replied that he would as lief sell to them as to any one, but that "at present he had an agreement and was not in a position to sell."

Gibson's Letter to Isachsen. Gibson, in his letter to Captain Isachsen, recapitulated these statements, and said besides:

"With further reference to my telegram from Tromsø that I must withdraw my offer of coal, I beg to advise you that it was with much regret that I felt called upon to take this action. If the information I have is correct I do not think you should expect us to furnish this coal free, and I feel that we shall not only be justified in charging the regular price of fourteen kroner per ton, but, should you require the coal earlier than we are in the position to deliver in the regular way, we shall be called upon to charge the regular rate of the men employed for the length of time they are engaged on this work . . . On reaching Spitsbergen I learned that the employees of F. Hjorth stated before the Whaling Company's ships left, that they had been promised passage to Norway in your ships.

"With this information in our possession I felt compelled to withdraw my offer. If you can furnish me disproof of the above information, I should be more than glad to reconsider the matter."

Captain Isachsen agreed to pay for the coal at regular prices, and he furnished good proof that he was interested in Hjorth's claim by employing Hoel, Hjorth's chief, as his geologist in the work which he expected to be doing that Summer in Green Harbor.

While waiting for the lading of the machinery on the *Munroe,* Gibson went down to Kristiania and had another interview with Mr. Peirce, who, on reviewing the additional testimony regarding Schröder's claims, came to the conclusion that they could all be disproved and that the matter would be no more serious than the others. Gibson thought that trespassers were going to be more active than ever on the Green Harbor tract, but judged that would be advantageous rather than otherwise; by keeping in touch with their prospecting, he should "gain quite a little information of the coal-seams, at their expense."

Anker's Letter. A letter from Herre Christian Anker, addressed to Mr. Longyear at Trondhjem, was opened by Saether, who telegraphed about it to Gibson, just setting out on his second trip North. Gibson received the message at Tromsø and wired not to answer it; it was forwarded to Mr. Longyear at Marquette, Michigan. Anker wrote in a militant spirit. He said among other things that he had been trying for some time to arrange a personal interview for the purpose of coming to an arrangement with him "in the Spidsbergen matter," and explained his views thereon and how it happened that he became interested therein. He assured Mr. Longyear that he never had the least intension of interfering in the very least with his plans and work in regard to "explorating the Spidsbergen fields of whatever nature these might be." He continued:

"In the autumn of 1908, however, I met one Mr. Ytteborg of Christiana, who stated having arrived from Spidsbergen, where he had taken occupation of land in the coal carrying part of the Islands. He invited me to partake in an Expedition next year for further examining the ground claimed for by him. This Expedition I joined in 1909 and my Men went up to Spidsbergen, taking such measures as the Expedition considered necessary in order to preserve the right claimed for by Mr. Ytteborg the year previous. Mr. Ytteborg was of course present, and went over the grounds with the men. . . . . .

"From your Manager residing at Trondhjem, Mr. Burrall, I received, however, a letter dated September 4, wherein he, without the slightest prove for his allegations, pretends that my men had been working 'on your property.' He 'warns' me further, that if I have not removed the hut and sign posts by the July 1, 1910 he shall do so at my expense.

"As I have already stated, I never intended going in your way, but you must remember that Mr. Ytteborg has occupied a territory, where your Manager had not put up any Posts at all to show that an occupation on your behalf had been performed. On the contrary, your Manager had taken occupation just until the Border, where Mr. Ytteborg's occupation commences.

"Having now become interested in the original Ytteborg occupation, it is my duty to protect same, and must tell you, that it is a great mistake of your Manager to take up the attitude he does. You will no doubt agree, that it does not rest with your men to be the judges at Spidsbergen in the question of 'mine' or 'thine.' We can 'claim,' both of us, but you can not on an alledged claim by Mr. Murrall without prove, remove the posts erected by Mr. Ytteborg in 1908, nor can Mr. Burrall remove the posts of my Expedition of 1909 without offending international laws and customs. I maintain, that all posts and signs must remain undisturbed on the Grounds until those arrive, who are to be the right judges, who shall divide amongst us and settle differences, that naturally can arise at a place like Spidsbergen. I shall therefore ask you respectfully to give such instructions to your men to withdraw from taking such steps as they have threatened to take and as would cause disturbances between us, they simply allowing things to have their course until the Spitsbergen Conference has come together and spoken in the matter.

"I sincerely trust that you will do all in your power in order to look upon the matter in the right light, and not allow your Manager to take steps that would carry with them unpleasant consequences."

Mr. Longyear's Reply. To this communication signed by Anker himself, Mr. Longyear replied:

"I, of course, have no way of forming an opinion as to your intentions towards the Spitsbergen enterprise in which I am interested, except your position as a trespasser upon our property. I understand that you have not been, personally, upon the land which your men are trespassing upon, but, you are allowing them to use your name in the acts of trespass they commit against us, thus making you a trespasser on our property.

"When you state that our manager had not put up any claim-posts covering the land upon which you are trespassing, I understand that you are repeating what has been told you by your men and so I do not hold you personally responsible for the untruth of the statement. For it is untrue, and the men who told you that we had no posts on the property told you what they knew to be untrue. There is such a post a short distance from the hut, or dog-kennel (it is not large enough for men to use) built upon our property by your men, last year. Your men also saw, and their attention was especially called to a copy of the map which has been on file in the Department of State, in Washington, for several years, showing clearly the lands covered by our claims. Our property is well marked with claim-posts at all important points. And your men knew it when they committed their acts of trespass and they know it now.

"Our Spitsbergen claims are well known to all, and no one can be an unwitting trespasser upon our property. If any one builds a house or other structure upon our property the building becomes ours, and we shall do what we choose with our own. We gave you permission to remove the things you had placed on our property, which is an unusual concession to trespassers. If you have not seen fit to take advantage of our clemency, the consequences must rest with you.

"We consider ourselves responsible for our acts and expect to find you equally so.

"Had your people been acting in good faith, there need

have been no conflict of interests, for there are plenty of unclaimed coal-lands on Spitsbergen. But they chose, rather, to try and deprive us of the fruits of our efforts without rendering compensation therefor. We are conducting the only coal-mining enterprise on Spitsbergen which has ever given promise of success, and I assure you that the childish performances of those claiming to represent you, on Spitsbergen, can have only one result, and that is disaster."

6. A GERMAN ARTIST'S ARTICLE

The *Munroe* sailed from Trondhjem for her second trip north on the night of June 13 with all the machinery, making a full cargo with a piled-up deck-load. The weather was so tempestuous that forty-eight hours after leaving Tromsø she was only eighty miles off the Norwegian coast. She arrived at Advent Bay Point about noon on the 21st and found the Bay still packed with ice from three to six inches thick. In order to help the ship break through, men were set to work sawing a single cut for half a mile to the dock, and after twenty-four hours of arduous work the ship tied up and began to unload.

Among the passengers was Max Raebel, a German composer, pianist, and painter, who had been living for some time in a little hut on the Graakallen near Trondhjem, and had become very popular by reason of his loyalty to Norway and his adopted town. He sent a letter to *Dagsposten* describing his experiences on the *Munroe*, and after he had reached Spitsbergen. It gives such a lively picture of the voyage and the conditions at Advent Bay that a few passages, slightly altered and corrected from Herre Saether's too literal translation are well-worth transcribing:—

Max Raebel in Dagsposten. "Trondhjem Fjord lay smooth as glass in the bright summer evening, the day being now at its very longest, and at midnight on the thirteenth of June the *Munroe* slipt out of Trondhjem harbor to make her second trip this year to Spitsbergen. I have rarely seen a lighter and grander night in these parts than it was at that time. The ship was so overloaded—especially with the deck-

load—that one felt an instinctive dread in thinking of the storms that might meet us in the Arctic Ocean. Such we certainly experienced, and had not Captain Naess been an unusually careful and resourceful navigator the ocean would surely have swept the deck. However, the ship has been sailing the Arctic since 1872 and the Captain since 1878 and this gave us reason to expect that this trip would eventuate successfully.

Amusement on Board. "The first day out, the 14th, we had bright sunshine with the mercury standing at twenty-three above zero [Celsius]. The laborers—there were fifty on board—lay on the deck-load both day and night. The time was spent in playing cards and in singing and other music; there were violins and flutes on board. About five in the afternoon a gale blew from the south-east with considerable rain. In the evening we had a little concert in the cabin aft, the captain and the mate playing the guitar and violin. The sunset was beautiful—at twelve minutes to twelve.

"On the 15th we reached the Arctic circle, and about two in the afternoon sailed into the West Fjord. There the sea was rough, and some of us did not feel so happy that afternoon. The wind changed to the south-west, and it rained all night, so we did not have a chance to see the midnight sun.

"We came to anchor at Tromsø about one-thirty in the afternoon in order to take on board fifteen hundred kilos of meat and other provisions. We stayed there about two hours and a half, and then the anchor was weighed and the ship headed due north.

An Arctic Storm. "The wind had been increasing, and when the steward came in with the racks I realized that now it was going to begin in good earnest. About half after seven the engine developed some trouble, so we came to anchor in a small bay to make repairs on it. This took two hours, and after sailing again we reached the Arctic Ocean at one in the night. We were here met by a great big mass of waves, rain, snow-slatter, and a biting wind from the west. One sea after another broke over the deck, and in a very short while there was not a single dry place on the ship.

In the forward cabin where the laborers were sleeping, the water soon reached up to the bunks, yea, it went over the bunks during the worst swingings, so all the bedding was soaked through. In my cabin also the floor was overflowed, so I had to get up and bail water every hour.

"When I awoke the next morning, both shoes and trunk were floating around and the 'cat' had drowned. What kind of a cat you ask. Why, the theater-cat which my friend, the actor Eide, had placed on the table the night before.

Skilful Navigation. "The 18th the water reached the engine-room and the pumps had to be started. After an hour's work we got out some water, and as the wind and waves after a while calmed down we began to think that the danger was past—the danger that the deck-load would go adrift. During all this time Captain Naess let the boat go for slow speed. He steered west and east and north to save the ship and the load. The engine also was stopped for some of the worst waves. A splendid sailor, experienced and able, such as I have seldom seen, this man, Captain Naess! Always on his duty. To him one can safely trust oneself if one is going to Spitsbergen. He will carry one into a safe harbor.

"The sea calmed down after a time and in the evening there was only a big swell left. The next forenoon it snowed a little. On the 19th the sun appeared. At noon an observation was taken which proved that we were in the latitude of Bjørneøen (Bear Island), 74° 13′ 14″. We did not get to see Bjørneøen as we were driven too far to the westward. Sails were set which, however, had soon to be taken in, as the wind went over to the north-west. As it was we made now six and a half miles an hour as against the two miles (sometimes indeed only three-quarters of a mile) the day before. In the evening we met the drift-ice like a wall. We had to turn from our course and proceed to the west. Some hunting vessels were seen, and one was spoken, and by this one we were told that it was only a narrow strip of ice and had to be sailed around. It was the ice from the Stor Fjord.

Fantastic Ice. "We sighted land at five in the morning of the 20th. The thermometer indicated only 5°, but every once in a while it would jump up to 10° in a minute's time, all depending on whether we touched ice or not. The whole forenoon we went through the ice-floe, and the most fantastic ice-formations were seen. Some of the ice-blocks looked like viaducts; others like Polar bears, toad-poles, flowers, ships, swans, boats, and the like, in their shadowy lines perfectly blue or green. In the afternoon the water was free of ice. We neared the coast not far from the Ice Fjord which we reached about twelve midnight. The mountains, snow-covered and white as chalk clear to their feet, were brightly lighted by the sun.

Advent Bay. "At three in the morning, June 21, we looked into Advent Bay, about a kilometer away and three kilometers from the dock. We could not come nearer. We took a walk ashore over the two-foot-thick ice. The ice-saws were fetched from the 'City,' and soon it got crowded out on the ice. In the afternoon the ship began to force its way in to the dock, after they had sawed here and there. We were maneuvering back and forth in the ice all night, and we reached the dock on the 14th at nine o'clock in the forenoon, after eighteen hours' work.

"I had to admire the head-steward, who succeeded in preparing warm food even during the worst of the storm. There was only one day when we had to get along with nothing but soup for dinner. But if it was an art to prepare the food, it was as much of an art to get the soup and the tea down, for it was a frequent occurrence that the coffee-pots and the tea-pots stood on their heads. Only once however did it happen that I was rolled out of bed.

Temperature. "Since June 23 we have had a continuance of splendid sunshine, day and night. The thermometer showed 15° the twenty-four hours around. Saint John's Eve, which owing to the incessant work there was no chance to celebrate, I noted 15° Celsius at midnight. The sun was by this time so high that the highest mountain-top

could not reach it. There is a big difference between the temperature in the sun and in shadow. On the shady side it must have been only 6° or 7°."

Mr. Raebel went ashore and established himself in a tent where he lived when the weather was pleasant. "If it becomes rainy," he said, "I shall move into a little wooden house which I have discovered a short distance from the sea. It is an unused dynamite-house which the wind turned upside down last Winter, so that it now rests on its side. To get in through the door I have to use a ladder. The hut lies on a hillside, and there is still some snow on the ground. If only it does not turn half over again when the snow melts! I guess it will be best to take the ladder in with me every night, for it might happen some morning that when I wake up I should find the door in the ceiling."

Northern Civilization. He was greatly impressed at the sight of the northernmost electrical railway and the northernmost horse-stable in the world with seven contented-looking well-fed horses. He describes the "ryper" promenading around the house-doors, while on the ice thousands of seals lie even as far as the shore. He was hoping to get a piano over from the deserted English camp, and he said, "I expect to hold the world's most northern popular concert; also I shall soon establish the northernmost photographic studio in a house standing on its head."

7. EQUIPMENT OF THE MINE

Gibson reported the working-force for the summer campaign to be a total of one-hundred and twenty-one men.* He explained the small proportion of regular miners as due to the necessity of making extensive repairs on the upper terminal of the aërial tramway, so that coal could not be mined

*As a matter of record it is worth while to indicate the relative distribution of this little army of workers: 1 superintendent, 1 doctor, 4 stone masons, 4 foremen, 1 English mine deputy, 1 machinery erector from British Westinghouse, 1 electrician (American), 1 mine foreman, 3 electricians, 3 machinists, 2 blacksmiths, 2 clerks, 18 carpenters, 6 miners, 5 stewards and helpers, 7 drivers, 61 laborers.

during the summer. Everything seemed to be progressing famously, and they were a fortnight ahead of schedule time.

The power-house was completed so that they were proceeding rapidly in placing the new machinery. This consisted of two British Westinghouse generators of seventy-five kilowatt capacity each, driven by Browett marine engines, generating three-phase current, fifty cycles and a voltage of twenty-two hundred; complete switch gear for controlling the above machines and a small transformer to transfer the current to four hundred volts for use in the power-house, driving condenser and shop motors and for lighting purposes; two one hundred horse-power Scotch marine boilers carrying a steam pressure of one hundred and fifty pounds and tested for three hundred pounds per square inch; two large iron water-tanks (capacity about 20,000 gallons) for the purpose of storing water for use during the winter; one surface condenser capable of condensing the steam from both generators while working under full load; one evaporative condenser, capable of condensing the steam from one generator while working under full load; one machine shop containing lathe, shaper, emory grinder, and drill press.

Favorable Weather. Weather-conditions proved to be exceptionally favorable on the Island for building and installation operations. The men took hold with energy, and Gibson reported from time to time the progress made. He sailed on the *Munroe* as she made trips back and forth carrying cargoes of supplies for the mine and coal from the mine. Her third trip had Hammerfest as its objective. She was delayed only ten hours on the way down, from having to run at half-speed through thick, heavy ice; on the way back she left Hammerfest July 30 and reached Advent Bay August 4, with a delay of two days and a half.

She made a second trip to Hammerfest and three more to Tromsø, delivering cargoes of coal. The *Locksley* was again engaged for a second service; but as she reported late, it was deemed inadvisable to send her up, since the time required would have exceeded the limit of the insurance period. All

the coal, twelve hundred and forty-three tons, was satisfactorily sold, delivered promptly, and elicited testimonials of high appreciation.

Owing to the completion of the construction work sooner than was expected, it was found possible to return the summer men early in September instead of in October, and as they arrived before the collections were made on the sales of the coal, which would have covered all the incidental requirements for the year, Gibson was obliged to draw on the Company for money to pay them.

8. THE ZEPPELIN EXPEDITION

During the Summer ice-conditions along the Spitsbergen coast were exceedingly bad, worse, in fact, than any living pilots could remember having seen them. Consequently few tourist ships were able to penetrate into Advnt Bay, and some advertised trips were given up altogether. There were some interesting visitors to the mine, however. One of these was the North-German Lloyd liner *Mainz,* which, it will be remembered, was making a scientific examination of the coast of Spitsbergen for the ostensible purpose of finding a suitable place where Count Zeppelin's dirigible could be landed for a dash through the air to the North Pole. Count Zeppelin himself was on board, and so was the august patron of the expedition, Prince Heinrich of Prussia. The Geheimer Regierungsrat Professor Dr. A. Miethe, the historian of the voyage, tells how on the morning of July 16 the great liner entered "the broad gate of the Ice Fjord."

The Mainz at Green Harbor. The *Mainz* steamed cautiously through the floating cakes of thick ice into Green Harbor and anchored not far from the whaling-station. Miethe tells how they could see in the misty sunlight a blue cloud of smoke arising from a dimly-visible complex of buildings on the easterly side of the Bay. It was the outward and visible sign of the unsavory industry which Norway had been obliged to exile from its own coast. A big bark was made fast close to the shore, and all around it were the monstrous shapes of

slaughtered whales, above which countless sea-fowl were flying, settling and screaming.

In spite of the unspeakable stench, the *Mainz* became a rather near neighbor to this abominable establishment, and some of the passengers landed for the first time on Spitsbergen shores at the foot of a mountainous ridge, the peaks of which were monotonously striped with narrow drifts of snow, while on the precipices "could be seen many black patches, the outcroppings of the well-known coal-seams which are principally worked on a small scale for the use of the blubber-boiling establishment."

Herr Miethe's statement, brief though it is, contains three inaccuracies. There are no visible outcrops of coal about Green Harbor; the small-scale workings were not for the blubber-boilery, but were merely exploration-entrances. He must have drawn upon his imagination.

Geology and Scenery. Some of the scientific members clambered up to investigate the geology of the carboniferous rocks and others wandered along the strand, gazing with delight at the peaceful sea visible between the marvellous blue and green icebergs piled up on the beach, and across to the mountains rising through the shimmering violet of the glorious day; but they could not imagine what aberration of mind had caused its discoverer to call the harbor Green when not a sign of vegetation could be detected on the bald ridges and peaks covered with boulders.

Arctic Grandeur. "Only in isolated places," says Dr. Miethe, "where the land is more level and an extremely unpleasant morass has been formed of flowing ice-water and clayey débris, there is a greenish moss with delicate little Alpine plants, the bright-colored stunted blossoms of which open in the clear midday-sun. But generally gray, brown tones in the distance, shading into violet, prevail. The aspect of the scene might well be called monotonous and melancholy, but the marvellous sun, spreading its glory over the calm sea and the straight line of the coast, communicates to it all a silent glamor of peaceful quiet and Arctic majesty, which has its gripping

effect upon one. It seems as if the Day-star did its level best during the brief summer season to beautify this deserted corner of the world with a superfluity of color and magnificence, as if it were conscious that all too soon it would have to take its departure from this inhospitable land and leave it to the fogs of the Autumn and the storms of Winter."

A Successful Whaling-season. The captain of the whaling-ship came on board the *Mainz* and informed the Germans that it had been an unusually successful season: they had taken more than fifty whales, each valued at three or four thousand kroner. He breathed about him an atmosphere of disintegrating blubber, but contentedly assured his hosts that it did not take long to become accustomed to it and then the stench seemed actually agreeable. This proved in a measure true even for the Germans: they soon forgot the horrible surroundings. A favorable wind was beginning to drive the encompassing ice out of Green Harbor, and gave the ship free access to Advent Bay. Herr Professor Dr. Miethe thus describes the landscape:

A German Picture of Advent Bay. "Advent Bay is from an artistic standpoint a sad disappointment. Surrounded by monotonous, partially snow-covered, gray, lofty ridges, without alluring charm, while their shallow valleys stretch away towards the interior of the country, the Bay widens out southward toward the insignificant background of mountains; nowhere can be seen a regular form or a pointed peak. Only here and there in low passes and troughs tiny *apere** glaciers of a grayish-green color can be seen; boulders, clay and débris prevail, but at the right there is a more definitely developed valley, at the entrance to which stands out prominently the land-bridge of the famous great coal-mine of the Arctic Coal Company, the precipice enveloped in enormous

**Apere* is a technical word used by Swiss mountaineers to qualify glaciers of pure greenish-blue ice, without a covering of snow or boulders. When heavy snow falls it tends to crystallize underneath into ice; this ice by reason of its weight flows down into the valleys, unless it is a dead or retreating glacier. The word *glare* perhaps comes nearest to translating an untranslatable term.

slopes of sandy or rocky talus with no distinctive rock-forms, but with everything buried in gravel and débris.

"The fact that tourist ships have for many years made this point the objective of their trips can be explained only by the inertia which everywhere else in the world has for decades kept to a certain route fixt once and for all.

"If you have ever observed a foot-path on a level meadow, you will have noticed that it rarely follows a straight line but takes many turns and twists. Every such variation in direction must have had some definite reason—here a bush, there a mole-hill or a big rock must have caused the first wanderer to deviate from a straight coursé. But the bush, the rock, and the mole-hill have long since disappeared; yet the path has followed its original bent and still keeps its form and direction. It is exactly so with tourist ships.

"In reality, Advent Bay is of all the western harbors of Spitsbergen by far the least interesting and least characteristic of the Archipelago. Moreover, the reputation which it enjoys of being most continually free of ice is wholly unfounded. In Advent Bay we were crushed in the drift-ice and completely blockaded, and moreover earlier reports relate similar difficulties which are all the more unpleasant because the anchorage is rendered dangerous to a much greater degree than in other bays by the pack-ice. To be sure no glaciers debouch into Advent Bay, and one is safe from the icebergs that may render one's position uncomfortable, and yet the Bay ice itself is far worse in reality. The great eastern gulfs of the Ice Fjord become open comparatively late in the Summer, and the ice-floes which pours out from them easily make their way into Advent Bay; moreover, as we found to our cost, there is the danger that the ice which clings to the west coast of Spitsbergen may be driven by the west wind into the Ice Fjord, and then Advent Bay is blockaded. And this ice is composed of extraordinarily massive thick hard blocks which may greatly imperil even an ocean liner."

A Treacherous Morass. The *Mainz* was in real peril, threatened with a crushing fate. While the ice seemed to be

growing more and more menacing, there came a sudden change in the wind, and the next day a good part of the enemy's forces began to evacuate the harbor, though not sufficiently to liberate the *Mainz*.

Professor Miethe gives a most amusing account of an excursion which some of the scientists on board made or tried to make toward the upper end of the valley, where they were almost swallowed up by the treacherous morass and from which they had great difficulty in returning to the ship. While she was still under the blockade ,some of the passengers took advantage of a narrow lane of open water to run up to the landing-dock of the Coal Company. Prince Heinrich himself steered the little *Phoenix,* on which they embarked. Professor Miethe thus describes the adventure:

Prince Heinrich Visits the Mine. "The coal-mine at Advent Bay is the only one up to the present time developed on Spitsbergen with any success in obtaining a genuinely practicable, comparatively recent but very excellent coal. The English [*sic*] Company, working during the summer months and freighting their product on their own vessel, has organized the whole industry of this remarkable mine in the most practical fashion. Not only has a little 'city' of wooden houses, furnishing good and wholesome accommodations for the miners, been built in the barren valley, on the northern precipitous sides of which the shaft penetrates the mountain, but all solicitude has been shown in the wisest way in other respects for the well-being of the miners. Alcoholic liquors are brought to Advent Valley only by the means of tourist steamers. The surroundings of this 'Longyear City,' as the little settlement is called, are really quite picturesque. Situated on the sterile, well-trampled, and dusty tundra near the rocky precipice of the mountain, it overlooks the southerly part of the Bay, and the barren Advent Valley on the one side and on the other the melancholy, solemn, snowy head of the valley. The mine is connected by an aërial railway with a landing-station on the fjord, and the construction is made to accommodate itself very simply to the horizontal strata frozen hard as the rock. It seems as if this establishment were capable of producing a

UP LONGYEAR VALLEY

permanent, although modest profit, at least as long as the Norwegian Government shall prefer Advent Bay coal for the use of the railway that runs from Narvik into the interior of Sweden."

Another member of the Zeppelin Arctic Expedition, Geheimer Regierungsrat Professor Doctor Hergesell, also described the difficulties presented by the ice and casually mentioned the visit of Prince Heinrich and a large company to the mine at Advent Bay, but gives no further description. Professor Miethe thus describes the manner in which the big vessel was freed from its imprisonment:

The Freeing of the Mainz. "While we were inspecting the establishment at Longyear City a disagreeable change in the weather took place. The southeast wind, which had prevailed during the whole day, suddenly increased in strength, raising clouds of dust in Advent Valley, and directly a veritable tempest raged over us. On the *Mainz,* to which we immediately returned, the consensus of opinion was for the speediest possible raising of the anchor, for the position of the ship grew more and more precarious from minute to minute. The heavy blocks of ice which the wind drove before it and which at times were piled up against the prow in great masses, now and then seriously threatened to snap the anchor-chain, and directly behind us, not more than a hundred meters from the stern of the ship, lay the flat coast. As our propeller could not be turned in the ice, an attempt had to be made to let the *Phoenix* tow us against the wind far enough to get free of the ice. So after the *Phoenix* had been attached to the tow-rope, the anchor was hoisted, but only with the result that the *Mainz* and the *Phoenix* drifted together to leeward, since the little steamer was not powerful enough to pull our great vessel against the roaring wind. At the very last moment, when the *Mainz* was in imminent danger of going ashore, the anchor was dropped again and by a mere lucky chance we succeeded during a brief moment in starting the screw in a small space of open water and thus seconding the effort of the *Phoenix* and working clear of the threatening coast."

This somewhat sensational description has its amusing side: the danger was mostly imaginary. Cargo ships rode at anchor in Advent Bay at all times in the summer without any difficulty.

A day or two later, when the Zeppelin Expedition penetrated farther to the North, some of its members fell in with the redoubtable Rittmeister Isachsen, who was then exploring in the vicinity of Quadehook. They found him sound asleep in his tent, resting after unusually strenuous exertions. When he woke up and came out, he presented a delightfully picturesque appearance. Professor Hergesell makes a verbal sketch of him:

Pen-Portrait of Captain Isachsen. "The Rittmeister's appearance was certainly farthest removed from the usual tenue of a cavalry-officer; he himself told us that he had not had a bath for weeks; his beard was untrimmed and hung down in long tangles; his garb, however suitable for the climate and the conditions of life, in that region, showed signs of hard usage and was scarcely fit for decent society."

At first Isachsen refused to go on board to meet the Prince: his principal reason being that he was momentarily expecting the return of some of his men who had been engaged in an attempt to cross the Island. He was finally persuaded, however, and every facility was given him to make himself presentable. They took him on board, gave him a warm tub, put him into the hands of the ship-barber, furnished him with clean linen and a suit of blue, and made a new man of him.

His Scientific Achievements. Whatever silent partnership Captain Isachsen may have established with the interlopers of Green Harbor, his scientific work on Spitsbergen was of extraordinary value. His expedition consisted of fifteen members with the Government vessel *Farm,* as their chief reliance. One of the party, Lieutenant Arve Staxrud, surveyed the south side of the Ice Fjord toward Bell Sound. King's Bay and the whole length of the eighty-kilometer-long Foreland Sound were systematically mapped in soundings. Important geological investigations were made, and studies

of the ocean currents were carried out. All this and much more was accomplished in spite of the difficulties of the ice-blockade. It may be mentioned that this same Arve Staxrud, on his return to Norway, filed claims to unoccupied coal-lands, while Ritmester Isachsen himself, not long after his return to Christiania, approached Gibson with a proposition to sell Mr. Longyear for fifty-thousand kroner certain *information* regarding iron-ore deposits which he claimed he had discovered and which varied in their proportion of magnetic iron from forty per cent to more than forty-seven per cent, with only small adulterations of titanic acid fosfurus and sulfur. He intimated, however, that he would go in on equal shares with Mr. Longyear, provided the latter would bear all the expenses of prospecting. This iron-ore was situated about seven hours' run from Advent Bay, and gave promise of being very abundant. It proved, however, that the percentage of iron in the ore, as stated by Isachsen, was too low to be of any importance.

Gibson informed him that he felt certain that Mr. Longyear would not be interested, but would bring the matter to his consideration. He informed the Ritmester that Mr. Longyear was expecting to spend the next Summer in Norway and Spitsbergen, and they might meet.

9. GIBSON'S ANNUAL REPORT

Gibson left Spitsbergen toward the end of October on the final return-trip of the *Munroe,* and early in November sent his annual report to the Boston office. Besides describing the installation of the machinery already mentioned, he summarized the operations at the mine as follows:

The Incline Plane. "The incline plane connecting the winter stock-pile and the bridge to the dock and the bridge from the shore to the dock were both widened to accommodate the larger cars used this year. An incline was built on the dock to raise the cars to a sufficient height to load in large ships and a steam endless-rope engine was placed on the shore for the purpose of transporting cars over the bridge and up the incline.

"A steel traveler operating a clam-shell for loading the winter stock coal, with a capacity of between six to seven hundred tons per shift of ten hours, was erected, thoroughly tested and found to meet all expectations.

Electrical Apparatus. "At the mine a complete switchgear and transformer were installed for the purpose of reducing the current to a working voltage of four hundred, an electric haulage gear of the main and tail-rope design, two Diamond coal-cutting machines, and all necessary switches and cables for conveying the current throughout the mine were put in and tested. They all worked very satisfactorily. Owing to the terrific storms on Spitsbergen during the winter the poles on the transmission-line between the power-house and the mine had to be set at intervals of sixty feet.

"A complete double-wire telephone-system, connecting all points of importance on the property, was installed.

"At the camp a transformer was placed for reducing the voltage for lighting purposes and the houses were wired for lights.

New Houses. "Three double houses were erected, each containing ten rooms, for the purpose of establishing families in the camp, the original intention being to move the families in this fall to overwinter. A woman taken up last fall gave considerable trouble during the winter, and I therefore decided to wait until next year and take the women up early in the spring and have the summer to try them out thoroughly, and if any give trouble bring them back at the close of the summer season. With these new barracks there is now camp-room for about one hundred and seventy-five men and the proper officials.

The Improved Plant. "Owing to the widening of the bridge to the dock, it required a great deal of rock filling. This work was very thoroughly and completely done, and I am sure the bridge will be perfectly safe from ice this winter.

"All of the machinery and appliances installed were tested before the summer season closed and found to work in an excellent manner. We now have a complete and thoroughly

up-to-date mining plant on this property, and it should produce between forty-five and fifty-five thousand tons of coal during 1911, as the installation is now complete and all energy can be directed toward the development of the mine and the production of coal."

During the summer one hundred and twenty-three men had been employed on the property and seventy-three men and three women were left at Advent Bay for the winter. All this work of installation had interfered with the usual summer mining, and Gibson was able to report an output of only twelve hundred tons mined during the latter part of the season, after the machinery had been thoroughly tested and was working smoothly.

The Winter's Output. The contract system of work which had been inaugurated had proved satisfactory to all parties. It was found that the men worked much longer hours and with more zest, as they earned fifty per cent more per day than when paid by the hour. Their eight months' work had amounted to five thousand six hundred and one tons, nearly all of which was piled near Tower Fifteen of the aërial tramway. This coal, together with that produced during the summer of 1910, would have all been sold had the steamship *Locksley*, which was chartered for the season, come to time. She was expected to make two trips, but was three weeks late and then delayed five days longer by the ice. When she reported the second time, the insurance period had expired. She carried only nineteen hundred and five tons. Fifteen hundred and sixty-two tons were carried by the *Munroe* during the season. This total of thirty-five hundred and sixty-two tons was as widely distributed as possible, and at all the new markets where it was tried it was subjected to rigid tests, and "in every instance it fully sustained the high standard of quality it had always shown." Five hundred and sixty-two tons were used by the ships in the Company's employ; six hundred and sixty-three tons were sold at the dock, and two thousand, one hundred and fifty-two tons were left in the stock-pile.

Financial Statement. Gibson followed his general report with a statement of the financial transactions of the year. The Directors of the Arctic Coal Company had authorized the expenditure of a little more than one-hundred thousand dollars. The actual amount used, including what had been spent for the machinery and its installation, was slightly less than ninety-eight thousand, leaving a balance of about two thousand eight hundred.

He followed this with his estimates for the next year. This amounted to sixty thousand dollars, most of which was likely to be needed in making advances to the summer men and to the five cargo-ships that would be required. He added twenty per cent for unforeseen contingencies, as, for instance, a prolonged ice-blockade. He thought that the prospects were bright for a shipment of between forty and fifty thousand tons during the next season, but it was discouraging that the market for coal was much lower than it had been at any time since 1887.

The Norwegian Coal-Market. In a supplementary letter, written early in November, 1910, Gibson outlined clearly some of the difficulties in making bargains with the Norwegian dealers. He considered the market particularly hazardous, largely because the merchants in so many of the small towns were provided with small capital, and a single cargo of coal meant a whole year's business for them: they could not afford to risk making experiments in any new venture not proved to be beyond question. Gibson found that the dealers almost everywhere were skeptical of the Company's ability to deliver orders on time, and insisted on a stipulation that no more than five days' delay should be given as leeway. He said:

"The merchants have no trouble whatever in getting a guarantee of delivery from England, as there are always boats coming here for ore and they are glad to get cargo, and if one is late another can be secured immediately."

It was therefore a vital necessity to make some arrangement whereby they might be freed from the uncertainty inherent in the tramp-steamers, so that the deliveries might keep all the

time employed the same number of ships. A whole year's profits might be endangered by having a ship chartered for only one trip fail to report at or near the date specified.

Meantime he was devoting his energies to creating new markets, in the line of his report, with the Norwegian coal-merchants in different towns, trying to extend the reputation of the Advent Bay product as much as possible. He wrote that he expected to be in New York toward the end of November, but, in case his presence were not required in Washington he thought that perhaps, after all, it was more important for him to give his personal attention to the matter of coal sale and distribution during the months of December and January, and that he would be willing to remain in Norway through the winter. He said in his letter:

Tight Guarantees Demanded. "From the preliminary replies I have received I am disposed to believe that the merchants are going to ask for very tight guarantees of delivery, and these can be met only by someone thoroughly familiar with the whole situation. . . . I assure you that one who has not visited them can not appreciate the prospect of a winter in the northern villages of Norway and Russia, but I feel sure that there is no one here who can be secured who is familiar enough with the situation to be safely entrusted with this work, and I am therefore perfectly willing to give up my trip home and take it upon myself."

This letter brought the cabled message, "Stay," as he had suggested, and he made his arrangements accordingly.

A Winter Campaign. The result of his campaign as he reported toward the end of the following spring was eminently satisfactory. He received an order for a cargo of two thousand tons to be divided between Aalesund and Kristiansund, completing the amount which he felt safe in guaranteeing before he knew exactly how much had been produced during the winter at Advent Bay. It amounted to thirty-five thousand tons and he had "a latitude on one order of about five thousand tons."

"This," he said, "is the highest amount I felt we had better

sell for two reasons: if we fail to deliver the full amount of coal we sell this year it will be practically impossible to sell next year, as that point has been our hardest obstacle to overcome this year, owing to the failure of the former English Company to deliver their sales; the second reason was that I found the prices ships wanted for one trip or for one month's guarantee with our option to put them off were decidedly prohibitive; therefore we should have been caught very badly if we had chartered ships for more coal than we had. Our charters are now arranged so that we can cut off with about twenty thousand with no forfeit, or we can hold to forty thousand for the full season, with the ships engaged."

Advertisement Sales. He announced that there was no town of any size between Arkhangelsk in Russia, and Aalesund in Norway—the latter place being about thirty-six hours farther south than Trondhjem—where they would not deliver some of their product. Some of the sales had to be made for advertising purposes, so small that a single ship would have to be sent to two or even three ports, and that would make the freight rather expensive. He thought that sixty thousand tons would be the limit to deliver at places along the coast, and he advised establishing a retail yard at Tromsø, from which the prospects were excellent that a business of fifteen thousand tons could be disposed of at a profit. The initial cost of building such a storage-house as would be needed would be about ten thousand dollars. If that were undertaken, he reckoned that they would have a market of about seventy-five thousand tons for the following year.

10. THE CLAIM-JUMPERS

A large part of Gibson's annual report dealt with the attempts of the trespassers to "jump" the American claims at Green Harbor. He went to Coles Bay and found that the Company's house there was in good shape, though it had been occupied at different times by a band of hunters who overwintered on the Ice Fjord. Nothing had been destroyed and, in accordance with the etiquette of the North, the men on taking

their departure had left a pile of dry kindling for the next comers.

Unscientific Exploring. At Green Harbor the three principal contestants kept up their annoying activities. The Hjorth Syndicate of Kristiania contented themselves with keeping a few men on the property, but the sum total of their work was an entry about fifty feet long in the coal-seam; but that was left so poorly secured that when the snow melted in the spring it filled with water, then froze solid and effectually stopped them. They had a foreman and one man pretending to work from June 30 to July 24; then for about three weeks four men in a motor-boat were added to the force and a new entry was started in about the same place and by October had reached a depth of three meters. They had learned nothing by experience. Gibson estimated that the value of their actual work, including the house or hut, amounted to fifteen hundred kroner, or about four hundred and twelve dollars. He adds to the report extracts translated from the log kept by Foreman Christian Øien between May 23 and September 7. Actual references to the encounters with the Hjorth men are as follows:

"*June* 5, *Sunday*. After dinner went to Hjorth's hut to see how they fared, and to find about the thirty men expedition which the whalers had said would come. They had heard nothing. It looked like poor business in Hjorth's place. The foreman went with me up to the mine. Well, it was black in there all right, but mostly stone, those coals there were poor. They had not got any more out than for daily use. The stockpile outside was no larger than two to three tons.

"*June* 8. Took a trip to Hjorth's hut. They did nothing, just wating for relief, tired of the long winter. I believe the provision they have is poor (or little of it).

June 30. A two-masted large motor boat came into the bay. Thought it was Hjorth's or Anker's, and went down to see. It proved to be the motor boat *Enigheden,* from

Kristiania, Skipper Lindquist, which had on board Hjorth's foreman, by name Reitan—all in all, on board were eight men. The motor boat had left Tromsø Saturday, the twenty-fifth of June, and had met the drift ice by South Cape, which had delayed them a day and night. Reitan was ashore with mail. I waited down by the edge till he came back. After having greeted him I, as representative for Ayer and Longyear, read to him the statement given me, which contained a prohibit to work old or start new works on our property. Reitan said that he had heard the old story before from Mr. Burrall, but as the final property rights to the mines in Green Harbor some time during the summer should be decided by arbitration, he would have to continue the work. He took it for granted that if the results of the conference should be in favor of Messrs. Ayer and Longyear the work done by Hjorth would be to the good of Ayer and Longyear and to their advantage. . . . Reitan said that it was not decided if Hjorth should have a winter crew, as this would depend on the result of the arbitration. Schröder had not yet come, but would probably come in the middle part of July. Two of the crew from the motor boat rowed out the fjord in a northwesterly direction, so there remains now only six men. (They were hunters and passengers.)

"*July* 1. Daniel Nøis' sloop has now come. From Hjorth's ship they have unloaded some cases in a boat. The ice still lies so compact in the bay that it is impossible to get to Hjorth's hut in a boat and dangerous to go on skis or with a sled. Hjorth's skipper told me that Hjorth had bought the motor boat for 5,000 kroner and had placed a motor in it, so it now cost him more than 8,000. The government vessel *Farm,* with Captain Isachsen, came this afternoon to Green Harbor. At six Reitan, with five men, went in over, and each brought along a sack of provisions.

"*July* 2. To-day came Hjorth's crew, who had overwintered (3 men) and shall go home on the *Enigheden* to-day. I talked to his foreman, Harald Isaksen, who said that only Reitan and one man should for the present remain. At five P. M. four of the men with Reitan came back, so there now remains only Reitan and another man. *Farm* still here. Hjorth's sloop aground. The reason is that the crew is drunk on liquor from the whaler *Hecla.* Hjorth's sloop came off at 9.30, and went at once to Norway.

"*July* 8. Reitan, Hjorth's foreman, asked me if I would let him have some dynamite, as he had forgot to take some along. He would get a supply he said around the 24th of July. I was rather perplexed over such question, and said, that on a mining expedition it was more necessary to take along dynamite than cigars of which he seemed to have a lot. Thereafter he left and was much angry.

"*July* 12. Hjorth's foreman, Reitan, came rowing. I asked how things went. He answered 'rotten.' A two-masted motorboat, which came yesterday proved to be a Swedish scientific party.

"*July* 16. *Munroe* came, and I at once got ready to go along to Advent Bay.

"*July* 24. Returned from Advent Bay. While I was away Hjorth's motor boat had come from Tromsø on Friday the 22nd. Only four men accompanied Hjorth's vessel, but the skipper had told at the whaling-station that in the latter part of September there would come three or four men to overwinter.

"*July* 30. In the afternoon I rowed in to Hjorth's station. The boat lay out in the bay. There was only one man on board. The others had moved ashore. By the side of the house was raised a tent, where the three men lived. I met Reitan up in the house. He was rather friendly, and asked what service he might render me. He had now got dynamite from the ship, so he did not have to ask for a loan. He told me unqualified that the mine they had

tried to work this winter is altogether filled up, and that with the present tools, which they had, it would not pay to take up the work again. I pointed out a new black hole to the south, which showed signs of work, and he affirmed that this was the place the men worked now. There was coal there, but so far from the bay that there was little prospect of rational work. They had only got two meters through the hill. As the slope [sloop] is going back to Tromsø and he only remained behind with one man, I can understand what extent of mining they will carry on this winter. I was treated with coffee and then went home; some contrary wind; long way to row and alone in the boat, so I did not get back before nine.

"*Aug.* 15. Hjorth's boat with Reitan and two men came out the bay and anchored by the whale-station. At 1.30 the two tourist steamers *Kong Harold* and *Neptun* came in sight, and a lot of ladies and gentlemen came on up to the station and some even up to the mine. After a short stay of three hours the ships went to Advent Bay, where *Kong Harald* should take bunkers. F. Hjorth from Kristiania came on the *Kong Harald* and went on board his motor boat and sailed for his coal prospects, but came back before the *Kong Harald* sailed and went on board. From Hjorth's foreman I heard that he had orders to sail to Tromsø to hire four men for overwintering and to get the necessary materials, provisions and ammunition for the winter.

"*Aug.* 16. Hjorth's boat with Reitan passed on its way to Tromsø to get four men for overwintering.

"*Sept.* 1. Today arrived Hjorth's boat, the *Foreningen* from Tromsø with the overwinterers, three men, whereof the two are the same, who overwintered 1909-1910. Reitan was along, had used three and one-half days from Tromsø. He will go back with the ship. I talked to him, and he said the following: 'Personally I don't believe it ever will result in anything to mine in this place, but as long as the chief insists upon it, it does not matter to

me.' The coal appears all right at Hjorth's opening, but the coal is mixed again and again with layers of slate so the little they do get out is more slate than coal.

"*Sept.* 3. At eight in the evening Hjorth's motor boat left. It didn't even stop here to receive mail."

A few more casual entries in Øien's Day-Book, more or less repetitions and of no special importance, were confirmed in a sworn statement.

Gibson felt more and more assured that the Hjorth Syndicate had no property-rights whatever on Spitsbergen. He had a somewhat lively correspondence, however, with Hjorth himself.

11. SCHRÖDER AND ANKER'S MEN

As to Schröder, Gibson, though he made diligent search, could find no trace of any other house such as that ambitious fisherman claimed to have erected during the summer of 1909; nor was any information to be had regarding the coal he declared he had brought down for sale during the summer of 1908, though the ships *Inga* and *Dixie,* both employed by the Whaling Company operating at Green Harbor, both brought down a few sacks for him the following season.

Schröder a Cat's Paw. Christian Øien, who was in Green Harbor from May 23 until September, 1910, "notarialiter affirmed" that "nothing had been seen or heard concerning one Andreas Schröder nor anyone representing him the whole summer" and it was his unqualified opinion that Schröder had not visited Green Harbor that year, for it would have been impossible for him to land there without being observed by some of the men employed by Ayer and Longyear. It was perfectly evident, therefore, that Schröder was merely a cat's paw enlisted in a blackmailing scheme by unscrupulous parties.

Anker's Men Ordered Off. Gibson dealt in the same thorough manner with the claim of Anker, or rather of the trespassers who were evidently financed by him. He says:

"Their ship appeared in Green Harbor on July 26 and sailed again July 31, being there in all only five days. They had two men on shore several days repairing a hut they had built in 1909, and on July 28 they were ordered to go up and work in the coal-layer. Our foreman met them and ordered them not to do any work and they returned to the ship, but on the following day, July 29, they were again observed going up the hill with pick and shovel, our foreman again made protest but this time it was disregarded and they proceeded up to the coal-layer and dug two small holes in the ground neither of them going through the earth that covers the coal at this point.

"There is not the slightest value on the work done by Anker at any time on this property, except the house, which is probably worth 300 kroner or about seventy-five dollars; the few test holes his representatives dug during 1909 have long since washed full of earth from the thawing in summer."

Gibson confirmed his statement by submitting a translation of Christian Øien's observations regarding the visit of the Anker Expedition to Green Harbor. The references to his dealings with Anker's men are as follows:

"*July* 26. At 12 o'clock noon, Anker's motor-boat arrived and anchored outside the hut built by Anker. I rowed onboard. It proved to be the motor boat *Haakon* of Tromsø, rented by Chr. Anker of Christiania, all in all nine men on board. One, who introduced himself as Captain of Engineers, Smith, said that he was the representative of Anker on Spitsbergen. I thereupon protested against his carrying on of any kind of work whatever on the properties of Ayer and Longyear, which I pointed out to him, whereto Smith answered that he had instructions from his chief to see that the posts were in good order, and if possible to repair, which might not be in good order, and to fix the hut, but any mine work would not be done. He said besides, that these days there was a preparatory meeting in Kristiania to decide the Spitsbergen question. The motor-boat had been in to King's Bay to look after some of Anker's posts there, and it had

to be back in Tromsø before the 9th of August, as the leader of the expedition, the Captain of Engineers, Smith, had to serve in the military. The skipper said that Schröder still was in Tromsø. There would be no over-wintering for Anker, Smith said.

"*July* 27. Anker's men were today up to the hut, which I believe was built by Anker's representative in 1909, fixed it some, and rowed thereafter in over the bay. I saw them go ashore far in, but they came back almost at once and rowed to their ship.

"*July* 28. Two of Anker's men were observed walking up to the old opening made by Anker, having along pick and shovel. I thereupon went up to them and forbade them to do any kind of work whatsoever. Thereupon they did really go, but down by the hut built by Anker, came Smith up from the shore and came to me and said, that he certainly would have permission to clean the old opening. Hereto I answered that he had heard the protest, which I on behalf of my company had made. He answered nothing, but turned around with his men to the ship. As this was about six o'clock they did not come back.

July 29. Quiet on board Anker's ship. As I at nine o'clock came from the mine I met again Anker's men coming with pick and shovel. On my question, where they were going, they answered that they were ordered by the Captain of Engineers, Smith, to go and remove the stone, which had slid down and filled the little opening made in 1909. I forbade them again, but also this time was I directed to Captain Smith. The men sat down, and I went down to the shore to meet Captain Smith, but then the boat lifted anchor and went in over the bay.

"These two men then continued up to the place, where I believe Anker's men worked in 1909, and worked there a very short while. I can see Anker's ship go around the whole bay, clear out to the 'Fortress' [Faestning]. I observed in the spy-glass, that Anker's men placed marks

on the west side of the bay, clear out to the 'Fortress' [Faestning].

"*July* 30. Anker's boat has come back and lies out in the harbor. I went on board and said to the gentlemen—I met both Smith and Ytteborg—that they should do no kind of work whatsoever, but was sharply turned down. They said that they would repair the hut, look after their old posts and clean the old openings. Ytteborg spoke very boastingly of his acquaintances in the Department. Thereafter I went ashore. At noon I again met Smith, and he said, that he now was through with his work in Green Harbor this year, 'but if things turn out, as I expect,' he said, 'will I come back in May, 1911, and within that time it ought to be decided, who have the right in this lawless land.' Thereafter he said farewell, as he was going again in the afternoon.

"*July* 31. At 3 P. M. Anker's motor boat *Haakon* went back to Tromsø.

"In the morning of July 30 I visited the place, where Anker's men had worked, and found two holes dug into the hill about fifteen meters apart; none of these holes were more than a foot deep, neither had they gone through the earth, which cover the coal at this place. These two holes represent all the real works, which have been done by Anker's expedition, with exception of the repair of the hut, which I have heard they built in 1909 and the repair of one of their marks. Anker's expedition was not in Green Harbor at any other time of the summer, except the days above noted."

This document was signed by Øien and also "affirmed notarialiter," thereby netting the public funds two kroner.

Øien's day-book or log is also reproduced in Gibson's annual report, and gives additional particulars concerning these episodes. For instance, he tells how on August 27, after Anker's men had been up to the hunting-hut, he himself went there, "cleaned it, set a hatch before the window, and put an iron bar across" and, having found a white board with white

STAFF-HOUSE, PIT-MOUTH, ETC., PHOTO BY MANGHAM, IN WINTER MOONLIGHT

letters lying on the shore he fastened it over the door of the hut. It read: "Ayer and Longyear, Boston, U. S. A., 1905," and was so placed that it could be seen from the Ice Fjord.

A Swarm of New Claimants. Gibson informed the Arctic Coal Company by letter that a swarm of new claimants had sprung up and were taking possession of immense tracts of land on Spitsbergen. The notifications of their claims were nearly all filed by fishermen and hunters. One, entered under the name of Johan Hagerup, ship-captain of Tromsø, covered eleven houses, one on Ederøen (Eider Island) and one on Tusendøerne (the Thousand Islands); these islands, being of reasonable size, he claimed in their entirety. The other nine houses were scattered all over the Archipelago; as he claimed five square kilometers around each of them, his possessions, if allowed, would amount to two hundred square miles in addition to the two islands.

There were many other claims, but none of them conflicted with the property of Ayer and Longyear except one on Cape Boheman; this was of no consequence, since it was proposed to relinquish that district.

Petty Annoyances. The Norwegian Government refused to allow Gibson to copy these claims, and he had learned that the Government had engaged an agent in the northern part of the country all the autumn and winter in hunting up Norwegians who could make any claims whatever on Spitsbergen, and persuading them to file their claims. This seemed to be only a part of the annoying and unfriendly attitude of the Norwegian Government toward the Americans. The narrow-minded officials seemed entirely to forget that there were many Norwegian stockholders in the Arctic Coal Company.

12. PLANS FOR WIRELESS INSTALLATION

The Arctic Coal Company early foresaw that it would be essential to their interests in Spitsbergen to have wireless communication. The matter had been talked over and Gibson was eager to have it established as soon as possible. That was another of his reasons for offering to spend the winter

in Norway. He realized that if he returned to America it might be too late, even if he were in Kristiania again in January, both to secure from the Norwegian Government the concession to erect a station at Hammerfest or Tromsø and then to place the order for the apparatus and have it installed in working order for the coming summer. He hoped to erect the Norwegian station before the first trip in the spring, and take the Spitsbergen station with him, and if necessary haul it in over the ice, so as to get the benefit of it as speedily as possible.

Judging from reports of the trouble which other companies had experienced in dealing with the authorities regarding the installation of wireless on vessels, he knew that a great amount of finesse would be required for a foreign company to obtain such a privilege.

Norway Refuses Concession. On December 5 he wrote Mr. Longyear that he had just returned from the Capital, where he had met Herre Thomas Heftye, Director of the State Telegraph and Telephone System, who informed him that the Government would not consider the granting of a concession or right to erect a private station in Norway under any circumstances, the State arrogating to itself the absolute monopoly of all forms of telegraph and telephone communication.

For some reason the Department seemed "particularly anxious to have communication with Spitsbergen, but just as anxious to have it under their control." The Director assured Gibson that Norway was going to install wireless between Hammerfest and Spitsbergen, but thought it would take several years before "they could work the thing up and get the appropriation through the Storthing."

Gibson informed him that they wanted and must have immediate communication, and the reply was that the only way it would be possible was for the Arctic Coal Company to furnish the money and wait until the Norwegian Government should get the appropriation through and refund what had been spent, they to give proper guarantee as to the length of

time in which the money was to be paid back with interest. Gibson saw no objection to this provided the Company had free and unhampered use of such apparatus until the Government took over the station; he insisted moreover on the privilege of locating the Spitsbergen station.

Wellman's Old Concession. It transpired that Walter Wellman had an earlier concession, and Gibson thought it might be so worded that they could work under it through him. It was also possible to buy an old ship and erect their Norwegian station on it, but the difficulty in such a procedure would be that the mast or tower required would have to be at least eighty-five meters high, and this would necessitate a rather large vessel. If this were done it could be anchored at some Norwegian port and towed about two or three times a year.

An attempt was made to locate Wellman. A first letter addressed to him was returned to the secretary of the Company in Boston; a second reached him but he mislaid it and therefore did not answer it until March 3 following. He wrote:

Wellman's Friendly Reply. "If the license that was granted us for a wireless telegraph is still in force, and you can use it, you are welcome to it. I do not know whether it is alive or not. Perhaps your people in Norway can ascertain. If you will get the information I will be glad to do anything I can to coöperate."

This indirect method, however, as might have been foreseen failed to bring about the desired results: the Norwegian Government was not to be caught napping.

Proposed Arrangement with Norway. In the meantime Gibson was making investigations regarding the cost of the wireless apparatus and installation, and received a number of "bids" from wireless telegraph companies in England, Germany, the United States, and other countries. None of them, however, was satisfactory. He decided that the wisest way would be to make an arrangement with the Norwegian Government for the Company to advance the money

for building both stations under proper guarantees as to repayment, and to allow the Government to operate them from the beginning, "as it would be a long time, if ever, before the communication could be made a paying investment, the ability to communicate with the mine during the Winter, which could be done with a very few code-words, of course, being the value to the Company."

Mr. Longyear realized that it was of prime importance to have the wireless service, so he did not balk at waiving the interest on the money advanced, if that stood in the way, but he did not approve of Norway's coming into immediate possession of the Spitsbergen station, as that might lead to complications, and it was important to keep the territory on the Island strictly American until their exact status should be determined by international agreement.

Exasperating Tactics. Gibson's negotiations with the Norwegian authorities caused him much exasperation, for they backed and filled and sawed and yawed with the situation changing every day. If the Director of the Department of Communications agreed to one proposition, the Ministry to which he was attached repudiated the bargain. Every disposition was shown by "those higher up" to throw as much difficulty as possible in the way of a speedy settlement. Gibson and Minister Peirce recognized that there was no possibility of getting a concession for a station on Norwegian soil. The plan suggested of equipping the *Munroe* with a wireless-apparatus and holding the ship at Tromsø or at Hammerfest was found to involve international complications: any apparatus powerful enough to talk with Spitsbergen could also reach foreign countries; it was learned through diplomatic channels that England would not agree and that the governments concurring to maintain Spitsbergen a No-man's Land would regard Norway as derelict to its agreement in permitting it.

An attempt was made to connect with Lloyd's, which had installed a powerful station in the North of Scotland. The committee of that corporation would have been glad to ac-

commodate, but all ship-to-shore stations in the United Kingdom had recently been transferred to the British Postmaster-General, so they no longer had any interest in wireless-stations in Scotland.

Alternative Propositions. The Secretary of Lloyd's suggested that the best thing to do in the circumstances was to request the British Government to establish a station in the North of Scotland, or if that was impracticable, "to ask for a license for permission to be granted to the Arctic Coal Company to carry out such an installation, or, as a third alternative, to get the Postmaster-General to use his good offices with the Norwegian Government in support of a proposition for the establishment of the desired station in Norway."

Proposed Station at Dunnet Head. The secretary informed Gibson that at the time of the transfer of the Lloyd stations to the Post Office, they were on the point of equipping an efficient station at Dunnet Head: the necessary operating-room was on the ground and a mast about fifty meters high was set up. He said that his committee would be quite prepared to transfer this equipment to the Arctic Coal Company at reasonable terms if permission to erect a station on the North of Scotland could be obtained. He suggested applying to the Danish Government, which had put Iceland into telegraph communication with the Mother Country: Denmark might provide similar arrangements with Spitsbergen.

He made another tentative proposition: "If you would be willing to recoup my committee by paying an annual subsidy toward the establishment and maintenance of a high-power station at Dunnet Head, they would be ready to ask the Postmaster-General to grant a special license to Lloyd's for this particular station." He intimated that this annual payment would be "heavy," and he doubted very seriously if the Government would consent to do so, as it was his impression that "they want to keep all such stations in their own hands."

Debates and Delays. This way being practically closed, Gibson kept on with his negotiations with the Norwegian Director of Telegraphs and Telephones, who was quite friendly

and ready to help in every way. The offices of the United States Government were also enlisted, and Minister Peirce had various interviews concerning the matter with Herre Irgens, the Minister for Foreign Affairs. Peirce thought that the objections raised by that gentleman would militate against action being taken at a date early enough to enable the Company to erect and put the wireless into operation that season, and he wrote Mr. Longyear that from all he could learn Irgens was "not disposed to put himself out, or, at any rate, to oblige the American interests in Spitsbergen."

Proposed Concessions to Hjorth. Oddly enough, Minister Peirce attributed to Gibson a plan which he himself seems to have evolved: this was for the Arctic Coal Company to "grant Hjorth his claims to land where he is trespassing for the right to install in the North of Norway a wireless telegraph station." Peirce argued that this would not "constitute a precedent of a dangerous nature, as it would be in effect a sale to Hjorth of the land he wants."

Gibson wrote that on February 22, Mr. Peirce proposed to him that the Hjorth claims should be allowed "on the condition that Norway would give up the Anker and Schröder claims, and build the Hammerfest wireless station." Gibson could not see that such a scheme would help them: it might be a good trade, but what chance would there be of its going through? Mr. Nathaniel Wilson, the Company's attorney, who was handling the matter with the State Department at Washington, was entirely opposed to making concessions to Hjorth: "In my opinion," he wrote, "it is not to be thought of; certainly not at the present moment. It would only complicate and delay present action. I do not believe the Department would approve of it."

Appeal to Washington. On March 18, the Arctic Coal Company appealed directly to the Secretary of State in Washington to use his influence with the Norwegian Government, not merely on the ground that the wireless-station connecting Norway with Spitsbergen was needed for commercial reasons, but also "in the interest and for the benefit and pro-

tection of the great and increasing number of people, including tourists, who each Summer visit Spitsbergen waters." An additional argument was that a large majority of the laborers at the mine were Scandinavians, particularly Norwegians.

The Company desired to erect a tall tower at Advent Bay with a radius sufficient to communicate directly with the northern coast of Norway; they intended to have it conducted by their own force of operators, but were perfectly willing that all messages should be under the inspection of the Norwegian authorities. They also wished to equip their steamer, the *William D. Munroe,* sailing under the American flag, with a wireless apparatus keyed to the station at Spitsbergen. Since this vessel would not need to make so many trips as formerly, she would remain a large part of the time in the harbor of Tromsø or Hammerfest, or at some other suitable port.

Mr. C. F. Ayer's Plea. "The urgent need to this Company," wrote Mr. Charles F. Ayer, the Treasurer, "to have wireless communication within the next few months, and also the advantages and increased safety that would enure to all navigators and visitors in that dangerous locality, justify us in requesting that permission be asked of the Norwegian Government in behalf of this Company to construct at once and maintain under proper conditions a wireless telegraphic station on the mainland in Norway at such point as may be designated."

Mr. Ayer adverted to the proposition that Hjorth's claim to certain lands at Green Harbor should be admitted as an aid in obtaining the permission of the Norwegian Government to realize their wishes and expressed the apprehension "that the presentation and discussion of such a proposition would cause delay in a matter so pressing and deprecated its advocacy.

Contract Obtained for Wireless. Disregarding diplomatic intercession Norway absolutely refused permission to equip the *Munroe* with a wireless apparatus powerful enough

to communicate with Spitsbergen. But in the meantime Gibson was making some progress in negotiating with Herre Direktør Heftye and finally succeeded in getting a contract between the Norwegian Telegraphic System and the Arctic Coal Company. The System agreed to erect a station on Spitsbergen and a corresponding station on the mainland of Norway, both to be completed and placed in operation as soon as possible during the year 1911, and operated by the System on its own account. The Coal Company agreed to erect and operate a station or eventually stations at various settlements on Spitsbergen to communicate with the System's main station there, and send all their telegraphic correspondence from and to Spitsbergen through Norway "as long as the tariff or rate of telegrams sent this way does not exceed the tariff or rate of other routes or facilities," and bound themselves not to erect a station on Spitsbergen of sufficient power to communicate direct with any other country.

A provisional tariff rate was established, and the agreement which was subject to the approval of the Government was to begin on May 1, and be effective until January 1, 1926.

Gibson withheld the phrase "including the Company's right to withdraw" because he was informed that the Storthing would not appropriate the money until their consent was final.

The Obstacles Overcome. Gibson cabled a code-message embodying the essentials of this agreement, and strongly urged its acceptance. In a supplementary letter he related the obstacles against which he had worked:

"At the beginning of negotiations Norway offered what I considered an impossible contract, wishing us to guarantee a fixed income for their station for twenty years. This I of course refused, but offered to guarantee 6,500 kroner per year for their one station at Hammerfest if they would build there to communicate with us at Advent Bay. The Norwegian Cabinet then refused positively to build the one station, nor would they consider the building of two unless we guaranteed a fixed income of 6,500 kroner for the two stations, or agreed to send all correspondence through their sta-

tions without reservation. I took the stand that we were willing to build at Spitsbergen and assume all risk and responsibility of income and expense, and that if Norway built it was only reasonable she should do the same.

"They then refused to build this year, and the Minister of Industries asked me, while walking up the street with me, what we would do, and I told him we had been assured from another source that we could get communication this Summer, and later in the day while dining at his home, he asked when I should leave for Tromsø, and I told him in all probability I should go to St. Petersburg the following day, so the following day they asked for another conference rather early in the morning. After several days of dickering the agreement I enclose is the nearest we could get together."

Arguments for Acceptance. He went on to fortify his arguments in favor of accepting the Norwegian proposition: In the first place it fixed upon Norway the responsibility of the investment, which was likely to cost them two hundred and forty thousand kroner, or sixty thousand dollars, and he thought that the cost of their communications would not reach nearly the interest on the investment and cost of operation.

Then the proviso that Norway must give such rates as might be secured through "other routes and facilities" safeguarded the Company, and there seemed very little danger of the Norwegian Government's "pinching" them. He added:

Gibson's Letter. "The present intention of Norway is to build on the Whaling Station property, but they are not bound to this, and I wished to insert a clause that they were not to build on the area in dispute. It was the general opinion that the Storthing would never appropriate the money with this clause, but after consultation with Mr. Peirce I waived this point as he feels that Norway as a Government could not possibly build on any property claimed by us. He strongly expressed himself of the opinion that it would be greatly to our advantage to have them attempt this. It is not at present their intention to do this as, owing to the formation of the

cliffs at Hjorth's trespass, it is thought the Station would not work. The Telegraph Direktør assures me the selection of the Station will be left to him, and that he considers the Whaling Station point the proper place as it is the only undisputed Norwegian property as well as the most advantageous from a scientific point. However, the contract does not protect us in this, and I believe it really would be impossible to get it through the Storthing with such a clause, as, if there is anything to cause delay, it will be too late to accomplish anything this Summer.

"This contract is the best we can possibly do with the Government for this year at least, so we must either accept it, make arrangements for our own stations on Spitsbergen and our ship, or wait another year."

Minister Peirce's Letter. About the same time as Gibson was writing this Mr. Peirce in a personal letter informed Mr. Longyear that whereas it had been up to that time the policy of the Norwegian Government to put obstructions in the way of the Spitsbergen enterprise, they had recently been obliged to take a more favorable attitude, owing to the excellent impression which the American Minister's interview with one of the newspapers had created among the business interests in Kristiania and other cities. These influential capitalists, who were the main support of the party in power, had been brought to see "how entirely in Norway's commercial interests the success of the Arctic Coal Company's mining industry was involved."

This and other considerations combined to give the American Minister's good offices in the matter of the wireless stations considerable weight of influence "in important quarters at the right time," so that Mr. Gibson had "received a proposition in regard to the wireless station which he seems to consider favorable." He also informed Mr. Longyear that his resignation, offered two years earlier, had been accepted.

The Fifteen-year Stipulation. The article in the contract binding the Arctic Coal Company for fifteen years to the main stations "by a short and very thin string" (as

Mr. Wilson expressed it) was disapproved both in Boston and in Washington. Mr. Wilson saw the Secretary of State and telegraphed to the Company to cable Gibson that Norway's last proposition was held in abeyance and not accepted. He wrote that Mr. Hale thought the modifications proposed by the Company were certain to cause discussion and delay. He reported as a bit of news that Peirce was to leave Kristiania on June 1, and that Mr. Curtis was then to be in charge of the American Legation, and it seemed very important that the real views or objections of the Norwegian Government regarding the wireless situation should be known both to the American Government and to the Arctic Coal Company before any new scheme should be proposed.

Mr. Hale read to Wilson "a communication (quite a paper) from the British Government (not from the Ambassador), and the proposed reply by the Department, which indicates that the two Governments will be *in entire accord in objecting to the project*"—that is, of equipping the *Munroe* with a powerful wireless apparatus.

Norwegian Offer Refused. The Company cabled Gibson to refuse the Norwegian contract, a supplementary clause permitting withdrawal before May 1; he notified Herre Direktør Heftye that his Company had not approved the conditions of the contract, and took advantage of the right to withdraw. But he wrote the home office the same date—April 24:—

"I cannot help feeling that we have made a mistake in not accepting the Norwegian offer, although this will make no difference in my efforts to get the concession of the terms stated in my despatch of April 7" . . . "The bids that will be accepted by Norway if she makes the installation are, Hammerfest Station kroner one hundred and twenty thousand, and Spitsbergen Station kroner one hundred and fifty thousand, or a total of approximately seventy-two thousand dollars."

Gibson Authorized to Yield. Five days later the Company cabled Gibson that the Department at Washington having recommended accepting the bargain, they authorized him to

close if convinced that he could not obtain better terms, and urged him to make a determined effort to get the Spitsbergen Station located at Advent Bay: "Green Harbor is not at all a suitable location. Insist on communication this year."

He wrote on the same day that he had already made as strong a stand as possible for stationing the wireless at Advent Bay, "but the officials would not agree to it. Nevertheless," he said, "I stated to them yesterday that you would not agree to the Green Harbor location, that you objected to Norway's having the station on Spitsbergen, but that you were willing to waive this point if they would build at Advent Bay."

To this the Minister replied that the Company had undisputed possession of the only harbor at Advent Bay, and, as there was no possibility of other companies getting in there, he could not recommend that place and, even if he should recommend it, it would be impossible to get the appropriation through the Storthing.

Jealousy of the Storthing. Gibson, who was diplomatic enough not to let the Minister see that he took the same point of view, nevertheless entirely agreed with him: "The slightest intimation in the Storthing that this station was being built for, rather than against, our interests would be sufficient to kill it. I do not think for one moment that the Departments are working in our interests or that they feel it is other than to their interest to have control of the wireless communication" . . .

"The granting of a franchise to us for a station in Norway has been absolutely out of the question from the first, and the original proposal that we furnish the money and build for Norway was a proposition of the Director of Telegraph which was made on his own responsibility, and which his Minister refused to consider. The Director and Minister of Industries, however, were in favor of Norway's building its station and allowing us to build ours, but this was blocked by higher powers. . . . They then asked what our Company would guarantee in tariffs if they built both stations. I offered guarantee of 6,500 kroner to the Hammerfest Station, but none for two

stations, and further stated we wished to handle the Spitsbergen end.

"After many meetings at which very little was accomplished they offered to build without the guarantee of any amount of business, and offered the contract which we have now accepted. It was simply out of the question to get them to adopt Advent Bay or to get them to consider building only the Norwegian Station. I have therefore told them to-day I had additional instructions from you to accept if they guaranteed communication this year. The Government would not appropriate the money until we finally agreed to accept the contract, and as we only accepted to-day it must go before the Storthing early next week. They are, however, preparing plans and receiving bids, and assure me all will be in order in time for this season."

Gibson, while showing all due deference to the opinions of the Company regarding the location of the Station, felt that on the whole it was just as well to have Green Harbor selected. "In the future," he said, "when we have a Government on Spitsbergen, then it will unquestionably be better for us to have the station at our camp, but as long as Spitsbergen is in its present state I do not think it would work particularly to our advantage to have several Norwegian Government employees in our camp during the Winter . . .

A Satisfactory Contract. "The contract has many points in Norway's favor, and is also favorable to us in many ways, and I feel and sincerely hope it will so develop that we have secured a very good contract. At all events, I think you can be assured it was the best that could be procured, unless we could have waited at least three years and possibly five, by which time Norway would have built the Northern Station, which must assuredly not have refused to communicate with us."

So the matter was satisfactorily settled. The Norwegian Government carried out its plans of establishing an expensive station at Green Harbor, a project which had of course an ulterior purpose in line with the intention of that country to

become paramount in Spitsbergen. But the arrangement afforded the American interests what they needed in the line of wireless communication.

The Local Wireless Delayed. Gibson was disappointed at not being able during the summer to erect the small station at Advent Bay to connect with the Norwegian main station at Green Harbor. Unfortunately, a seamen's strike and, later, the general traffic-strike in England prevented him from securing the material for the masts. At first he was encouraged by the engineer in charge of the Norwegian work at Green Harbor to hope that the engineer sent by the German Telefunken Company in charge of erecting that station and expected to spend the winter in Spitsbergen, would be permitted to go to Advent Bay in October or November for the purpose of erecting the station there. When, during the summer, that Engineer was recalled to Germany, Gibson tried to engage him independently; this the Telefunken Company vetoed; their own price was at the rate of forty kroner a day and a bonus of four hundred kroner. Of course he declined to enter into such an extortionate contract and put off installing the local wireless station till the following summer. He reported that communication could be made by sending two messengers—for men never should travel alone in the Arctic regions—at a cost of one hundred and twenty kroner a month: really a saving, as an operator would have to be paid two hundred and fifty kroner a month with free board and traveling expenses, making a total of about three hundred and twenty-five kroner a month.

IX. A POLAR BEAR HUNT

1. THE FIRST STRIKE

DURING the month of March, 1911, Gibson grappled with the question of securing ships to freight coal to Norway. Ship-owners, being unfamiliar with Spitsbergen conditions, would not consider contracts reckoned by the ton, so he was obliged to have recourse to time-charters, and owing to exigencies of the short season, he engaged five ships for maximum tonnage at a month each, with option up to three months, having therefore to pay higher prices than for the full season.

THE COAL FLEET. The five vessels were the *Heim,* 2400 tons, the *Folsjø,* 2200 tons, the *Rondø,* 2050 tons, the *Locksley,* 1850 tons, and the *Alma,* 1450 tons, at a total cost of about twelve thousand dollars a month. The *Fanny,* which had been chartered by the Norwegian Government to transport the plant of their wireless station to Green Harbor, was engaged to take coal back to Norway.

On April 1, the work of overhauling the machinery and other equipment of the *William D. Munroe* was begun. This was accomplished by members of the crew and outside mechanics paid by the hour, thus effecting a considerable saving over putting the vessel on a slip. It was all accomplished by May 10, the full crew was mustered by the 15th, and, the cargo having been loaded, she sailed for the North on the 20th with provisions for a hundred men for six weeks, with eighty-eight laborers, miners, mechanics, two foremen, two clerks, summer superintendent, and Gibson on board.

A NEEDLESS DÉTOUR. The wind blew all the time strong from the south-west and they first encountered the ice within fifty miles of Ice Fjord. At six in the morning of the 24th they found the pack so tightly frozen that it was impossible to

force it, and they lay on the edge of it until June 5, when they succeeded in getting through to the mouth of the Fjord at eight in the morning of the next day. Gibson with three men immediately started in over the mountains to the camp, for the ice, though too tightly packed to press through, was too badly broken to be safe to walk over. But when they reached a hunter's hut on Alke Horn and looked back they saw that the ice was rapidily moving out, and that it had broken in the north-eastern tributaries to the Ice Fjord, making it impossible to reach Advent Valley without a circuit of one hundred and twenty miles. After they had accomplished about a sixth of this distance, they saw that the *Munroe* had entered the Fjord, and they returned to the hunter's hut and then descending to the level of the Sea they crossed on the ice to board her again.

Landing Across the Ice. On the morning of June 7 they reached the mouth of Green Harbor, and the foreman of the exploring crew there came out to report that everything had gone exceptionally well during the winter. They lay at Green Harbor until nine in the evening, when the tide opened a passage, and after much difficulty with the ice they reached at six the next morning a point about eight miles from Advent Bay.

The summer men and indispensable provisions were immediately landed and all the winter men except the superintendent, B. Mangham, and fourteen others were taken on board. It was a three days' job to transfer the baggage and supplies but, though the ship was ready to sail by early morning on the 11th, the ice-conditions were so bad that it was held in the Fjord until the 20th; when sailing she reached Tromsø five days later, and left on her second trip on the 30th with one foreman and sixty-four laborers, miners, and mechanics.

Munroe Fever. Gibson remained at Advent Bay, having found that labor-conditions were in a tangled state. The men that had been left for the winter had refused to accept the contract-price—nine kroner for a nine-hour day—high as it was, offered by the Company, and demanded an increase of thirty

B. MANGHAM ON A WINTER TRIP

B. MANGHAM

per cent. So they were put on day-pay until December 1, when they gave in and worked according to their contract.

When spring arrived they suffered from the usual "Munroe fever," and were inclined to stop working and indulged in watchful waiting, most of them beginning to prepare for the ship's arrival five or six weeks before she was due.

A Sympathetic Strike. It happened that all the miners in Norway were out on strike, and as soon as the men at Spitsbergen learned of it from the newcomers they felt that sympathy called for a like action. This was fomented by two Swedes who had got into the crew by borrowing letters of recommendation, and had immediately begun to make trouble. They were gamblers; they had fleeced the other men and intimidated them. When the superintendent found this out he refused to give the men time-checks to be paid at the Tromsø office. This made it impossible for the swindlers to carry on their game, and they became mischief-makers. One of them was a giant in stature, weighing at least two hundred and seventy-five pounds. All the winter he had shirked and been troublesome. He would neither work nor pay for his board. He had boasted to the other men, who were afraid of him, that he intended to "get" Gibson and the Doctor before he left Advent Bay. He was down on the Doctor for having said he was not sick when he pretended to be. All the good workers among the miners were generally well-satisfied with the treatment accorded them, but they were easily led by a glib talker.

Assault on Gibson. Although the Swede had cheated them, they were inclined to support him even when he and his confederate carried out the threat of attacking the superintendent.

The giant came at Gibson with a club, the other threw a rock which hit him in the head and knocked him down. Baldwin, another American, saw the trouble and went to Gibson's assistance. Then the two Swedes attacked Baldwin; one of them hit him with a shovel, cutting his head badly. But Baldwin seized an iron bar and laid out the big fellow who was un-

conscious for fifteen minutes. Then the two mutineers were put into irons and taken on board a cargo-ship just leaving for Norway. While Gibson and Baldwin were at the office, having their wounds dressed, nearly half of the force of miners went down to the ship with the intention of rescuing the prisoners; but another American, who had been left in charge, persuaded them not to interfere.

A Critical Situation. Gibson said in his report: "If, in the first place, these two men had got the upper hand of the foreman and myself, or later, if the men had been successful in getting them off the ship and into the barracks, it would have developed into a very serious situation. The entire American and English force on the Island consists of only seven men as against about one hundred and eighty Scandinavians. For the sake of future discipline, it would have been absolutely necessary to have gone to the barracks and arrested these men, in which case there is no doubt in my mind we should have had to resort to firearms."

The Miscreants Escape Punishment. When the two Swedes were landed in Norway the authorities at Tromsø refused to discipline them, on the ground that they had no jurisdiction over foreigners, and when Gibson took up the matter with the American Minister in Stockholm, he was informed that the treaty between Norway and Sweden did not permit extradition, but that if the miscreants should appear in Sweden at any time the Swedish authorities would prosecute them: "The men, of course," says Gibson, "learned this and refused to go home, but found work in the mines of Norway."

Gibson was apprehensive that this first beginning of labor-trouble would spread and affect the laborers or the directors of the parties engaged in trespassing on the Coal Company's property: "Sooner or later this contention is bound to arise, and is likely to precipitate a situation which would be just as serious as any differences that may arise between the officials and employees of the Arctic Coal Company and Messrs. Ayer and Longyear."

Need of Legal Restraint. Gibson felt very strongly that some legalized officer of the peace was needed on Spitsbergen, or some understanding or arrangement by which crimes perpetrated there could be suitably punished. "If nothing is done in connection with this," he said, "it will be necessary for the Company to transport any criminals directly to the country of their citizenship and prosecute them as vigorously as possible. This will be a very expensive arrangement, as it may be necessary to send a ship on a special trip for this purpose, as we could not hold them in arrest while traveling through Norwegian territory. We can, of course, overcome this difficulty with the laborers by employing only Norwegian subjects on the property, but it will always be necessary to have a certain number of English and American subjects on the property, and the same differences are liable to arise with these at any time."

Impositions of Hunters. Another matter which much concerned Gibson was the lawlessness and audacity of amateur and professional hunters. Owing to the protection afforded by the camp at Advent Bay many men, generally ill-provided with the necessities of life, had got into the habit of settling for the Winter on the Ice Fjord. Their numbers and the proximity of the mine with its busy life had driven the reindeer and other game from the shores back into the Island. Lack of fresh meat and improper diet frequently caused the hunters to contract the scurvy or they met with accidents, and their comrades would bring them to the camp Doctor for attention. Humanity forbade turning them away, for they would surely perish. But the speculators that despatched them to the North, even when they were known, had no incentive to pay the doctor's fees or the cost of medicine and support while invalided and their contracts were worded in such a way that they were free of all responsibility for their passage back or forth. The men themselves had nothing which could be taken for pay.

In one case, in the summer, one of them broke his leg and when brought to the camp had to have special medical and surgical attention and an attendant for three weeks, and

returned to Norway on one of the Company's ships: yet it was dubious whether any part of the large expense could be collected.

Lack of Responsibility. The Norwegian Government was responsible only in case of shipwrecked or destitute sailors and not for other citizens who go to No-man's Land on private business. Law-suits were instituted against the employers, but with small hope of securing redress; in last resort it was proposed to bring an action against the Government, but that would take much time and the outcome there also would be in doubt.

Reckless Sportsmen. Game was meantime becoming scarcer and scarcer, so that it was deemed inexpedient to keep a huntsman at the camp. Moreover, the promiscuous hunting and shooting of game and birds by the tourists coming to Spitsbergen on private yachts and on excursion-steamers continued, and were doing particular damage to the ryper or ptarmigans which were hatching out in the summer and were very tame. These thoughtless or cruel visitors would not hesitate to shoot a hen sitting on her eggs, or with a brood of young. The reindeer were almost extinct, and very few white or blue foxes were to be seen. The year before the hunters brought in six blue-fox and fourteen white-fox skins and one of each kind alive; also a Polar bear skin.

2. NORWEGIAN WAYS

Mr. and Mrs. Longyear, with their son Robert, sailed from New York on the steamship *Celtic* on June 10, 1911, and arrived in London in time to witness some of the ceremonies connected with the coronation of King George V and Queen Mary. They were invited by Earl Brassey to dine with him and attend the Shakespeare Ball, which was regarded as one of the most gorgeous spectacles ever staged in England.

In London, they found Mrs. Turner, wife of Mr. Longyear's cousin James, and her son Scott Turner, who had been seriously ill with pneumonia at Barcelona, and had not fully recovered. He was a mining-engineer, and several English

companies were competing for his services by tempting offers. One proposition would take him into the wilds of Siberia, another to the jungles of South Africa, a third to the Argentine Republic, and still a fourth to Sardinia; but he had not made up his mind to accept any of them.

Gibson Resigns as Superintendent. Mr. Longyear, just before leaving America, had received a letter from Gibson stating that for family reasons he was obliged to return to the United States and to resign his position as general superintendent of the Company. Mr. Longyear, without saying anything about this, invited Turner to go with him to Spitsbergen, and the invitation was accepted. Mrs. Turner sailed for New York, Mrs. Longyear went to Paris, and Mr. Longyear with his son and his cousin proceeded to Newcastle, from which port they sailed on the steamship *Irma* for Norway on June 27, reaching Stavanger the next evening about eleven o'clock. As it was not very dark, only twilight, and there was plenty of time, they walked up and paid their respects to the twelfth-century church with its fine old Norman doorways and Gothic windows.

Hanseatic Museum at Bergen. Early the next morning they arrived at Bergen, where the customs officers chalked their eight pieces of luggage without opening any of them. The only train of the day for Kristiania had already gone. So they had a good opportunity to see the town, and to study the curiosities of the Museum which is in a warehouse kept pretty much as the merchants of the Hanseatic League knew it. The clerks in the olden time had to sleep in cupboards; there were no fires even in winter to warm them. Their superior officers apparently used whips made of raw-hides or dried ox-tails. They visited the grave-yard where many Germans were buried under cast-iron forms which resembled box-stoves. Mr. Longyear thought they "looked like preparations for a hot time." They rode out to the ancient Fantoft church, a twelfth-century wooden building preserved by saturating it with Stockholm tar. "Built before windows were invented," says Mr. Longyear's journal, "and covered by symmetrical

wooden staves, and with its dragon-heads at the upper corners, it looks like a curious, scaly old monster which some genie had tried to turn into a warehouse and had only half-succeeded."

An Americanized Chauffeur. Their chauffeur had lived in the United States, and his pyrotechnically profane English made his passengers think he had learned to speak the language in a Minnesota lumber-camp; but he told them he had been for some years at Jacksonville, Florida. They came to the conclusion that his profanity was not malicious but to be attributed only to his notion that it was good American. He gave them a lively ride, blackguarding everyone he met, offering to "lick" several pedestrians, raising his doubled fist to strike a working-man who stepped in front of the car and was nearly run over, and trying his level best to "get" a dog which barked at him and saved its life only by jumping into the gutter. "I'll get him yet," the Profane One cried, smiling gleefully, "I got three last week." A farmer was confused by the sudden appearance of the car, and the chauffeur, turning the wrong way, came within an ace of a collision. "Made it!" he shouted in a joyous voice and when a few minutes later the car skidded in the mud and almost crashed into the stone buttress of a railway-bridge, he exultantly demanded if his passengers had seen "the skid they had!" About a mile from the hotel on the return-trip the rear tire blew out. He cried, "That was done by that ––––– trolley-track," and he ran the car to the hotel bumping over the rough stone pavements with the result that the casing was a wreck when they arrived.

A Much-tunneled Road. At eight-thirty the next morning they took the train for Kristiania over the newly-completed railway, and for fourteen hours traversed one of the most picturesque regions of Norway. At one point it rises to a height of more than four thousand feet above sea-level. Robert Longyear attempted to count the tunnels through which it passes, but as the number reached fifty-three before they arrived at Voss, only a quarter of the distance, he gave it up. One was three and one-third miles long. At the highest points the track runs amid snow-fields and near glaciers; there was

some farming at both ends of the route, but long distances intervened where human habitations were conspicuous by their absence.

Picturesque Views. After they descended from the heights above the timber-line the forests became more and more numerous, and many of the swift rivers were full of floating logs and poles destined for saw-mills and paper-pulp works. They saw many beautiful waterfalls, some of great volume and height. When the road skirted precipitous valleys a wide outlook gave glorious scenery, often diversified with rainbows of enormous span. The cars were arranged like Pullman sleepers; they had booked a compartment, or section, but the only one left was the smoking-car where the atmosphere could be cut with a knife. When Robert tried to open a window, a German family, characteristically afraid of fresh air, uttered wails of protest.

When they arrived at Kristiania, at ten in the evening, they had difficulty in securing rooms, and finally had to content themselves at a pension about a mile from the station. A good part of the next day was spent in negotiating with the hotel for uncomfortable quarters. The office was fertile in promises: their luggage would be sent up immediately, but it was four hours before it appeared.

At Holmenkollen. The next day, Sunday, they made an excursion by trolley to Holmenkollen, a mountain-resort high up above the city. When they started it was fine and warm; soon a succession of hail-storms with heavy rain overtook them. These they dodged by finding shelter in various restaurants, and they finally climbed to the summit of the ridge and to the top of a wooden tower about eighty feet high, from which there was a wide view of the city, the fjord, and, at the back, of forests and wild country. Just as they got to the railway there was another heavy shower of rain, but they reached the hotel without trouble.

On Monday, Mr. Longyear had an hour's interview with the newly-appointed United States Minister, Laurits Selmer Swenson, a naturalized Swede hailing from Minneapolis. They

talked about Spitsbergen affairs, but not much light was thrown on future diplomatic developments.

The "Glorious Fourth" at Trondhjem. They took the night train for Trondhjem, and arrived there on Tuesday morning, the Fourth of July. Mr. Longyear says in his diary: "No booming of big guns or little guns. No snapping firecrackers. No brass bands of parading patriots. Nothing but the calendar to tell us it was the 'Glorious Fourth.' We had a 'sane and quiet Fourth' all right."

All the bookings on the regular steamer to Tromsø had been taken, but the *Kong Harold,* a tourist-steamer sailing the same evening, had accommodations, and they took passage on her. Among the passengers were Herre Haagensen, Manager of Privat Banken i Trondhjem, an old friend, and Professor Louis Derr of the Massachusetts Institute of Technology, with his wife and son Robert, neighbors of the Longyears in Brookline. The *Kong Harold* arrived at Tromsø at half-past six on the morning of the 6th.

New Headquarters at Tromsø. Gibson saw there would be numerous advantages if the headquarters of the Company were transferred from Trondhjem to Tromsø. Tromsø was five hundred miles nearer the mine; nearly all ships laden with coal and other commodities cleared either from there or from Hammerfest, which is only a few hours distant; it was a saving of expense in transporting of the laborers as all were ordered to report at Tromsø. This plan was sanctioned by the home office and the change and removal had been accomplished in March. When the steamer arrived there, Saether and Gilson were at the dock waiting to meet them.

Hoggish Germans. The *Munroe* would not be back from Spitsbergen until the 10th or 12th. To while away the time, Mr. Iongyear and his party continued on the *Kong Harald* which sailed at half after eight in the evening for Hammerfest and the North Cape. They had some trouble about securing accommodations at table, and were at first put in an upper small room with a lot of Germans, who acted as if they never expected another chance to feed. But Herre Haagensen

rescued them from this uncongenial companionship, and got them seats at the Captain's table.

They spent four hours at Hammerfest, and shortly before arriving at the Cape, made a brief stop at Hjelmsøtoren, a famous nesting-place for birds. From a point only a short distance from the cliffs the small ship's-cannon was fired and exploding rockets were shot, causing an immense sensation among the gulls, auks, and other inhabitants of that desolate place. The birds filled the air in numberless swarms—apparently enough to stock the world.

Line-fishing at the North Cape. They ran on past the Cape to a reef where the passengers fished with hand-lines and caught fourteen cod and two ugly-looking but edible fish looking like dogfish. The sailor in charge of the lines assigned Robert Longyear to a station where there was a grooved roller over which the lines could be worked. When the fishing began, Robert went to his place and found that a German and his wife had taken possession of it and refused to give it up. The sailor, when informed of this, instead of asserting Robert's rights, gave him another station: the German and his Frau had no luck. Neither indeed did Robert. The same woman earlier in the day had roughly pushed Scott Turner away as he was about to sit in an unoccupied chair on the deck; these chairs were free for all. She used so much force that he thought she was trying to throw him overboard. Those were only a few of the instances of arrogant behavior on the part of the *cochons allemands* which were noticed and discussed by the Norwegian, French, American, and Hungarian passengers on board; the conclusion was "that they did not know any better." Mr. Longyear says:

Rudeness of the Germans. "When tea or coffee is served on deck or at five o'clock they act as if it was the last chance they would ever have to secure food. The formerly often-mentioned 'American hog' seems to have lost his reputation, and now we hear only of the German porker. Five o'clock tea is served at a table with about twenty chairs, and there are about eighty passengers. Why chairs are put around the table

at all, unless they could provide chairs enough, no one seems to know; but so it is, and every day the table has been all occupied exclusively by the Kaiser's subjects who sat long and comfortably while others stood around and got what they could, drinking their tea standing. To-day an American woman, in a spirit of mischievous fun, passed the word around among her compatriots: 'Let us see if we can beat the Germans to the tea-table,' with the result that about half the seats were occupied by Americans. The Germans stood around the wall looking as if they expected to suffer for food. They did not take anything until they could get seats at the table. I happened to be close by the table when the bell rang, and a German woman and I dropped simultaneously into chairs—the first ones to arrive, but all seats were filled in ten seconds. People at the other end of the ship when the bell rang were too late for seats. It was all very absurd."

A Crowd at the Cape. An English ship, the *Viking,* with a party of three hundred from the London Borough Polytechnic arrived at the North Cape about the same time as the *Kong Harald,* and as all the passengers started up the steep climb of nine hundred feet, "they looked like flies clinging to a zig-zag string." Robert Longyear was one of the first to reach the top. But the sight of the midnight sun was not very satisfactory as it was covered with clouds and only made "sea-glynns" out on the ocean.

On their return they sailed around the island of Mager (Hunger—English, meager) (Magerø) and through Mager Sund, and they reached Tromsø at three o'clock Sunday, the 9th. They just missed meeting Fred Stone, of the "Wizard of Oz" Company, who had been there studying the Lapp methods of rope-throwing, and had taught the Lapps some of his own lariat methods. They put up at the Grand Hotel, which was grand only in name. The Americans were annoyed to the last degree by the stupidity everywhere manifest. Mr. Longyear says:

Annoying Tardiness. "Everybody in the ménage is very good-natured, very stupid, very inefficient. We order break-

IN THE DESERTED ENGLISH CAMP

COAL-CUTTER AT WORK IN MINE NUMBER ONE

fast the night before for nine o'clock, and by ordering it twice more in the morning we get it by ten o'clock or a little after. At meals, we are served with part of a course and the rest of it will come along in five or ten minutes. At supper, three maids, with thirty or more people to serve, will bring one cup of tea on a tray with milk and sugar to each person, going to the kitchen for each successive cup. Trays of bread will repose on a side-board while people at table clamor for it. Order a bottle of Apollinaris water and it will get as far as the sideboard where, it will stand with the cork out for ten or fifteen minutes until you persuade some person to bring it to you, or get it yourself. If one were in a hurry it would make one crazy."

Shopping Difficulties. The next day, Mr. Longyear and Mr. Turner spent some hours trying to procure a sitz-bathtub for the *Munroe*. One man to whom they applied said he spoke English, but when they tried to explain what they wanted he threw up his hands and said he did not know what they were talking about.

"Then we tried to find a small wooden wash-tub. One man said, 'Oh yes,' and took us a considerable ramble in the rain round to a shed behind a warehouse on the wharf, and proudly pointed to a collection of a hundred or more of all kinds of old barrels. During this expedition we fitted Scott out with an Arctic suit of clothes which will make him look like a seal-hunter on dress-parade, but he will be warm."

A Mining Interest for Sale. Toward evening a man came to the office to see Mr. Longyear with a proposition to sell him a mining interest in alleged iron-ore property across the fjord. He wanted one hundred thousand dollars "to swing the deal." Mr. Longyear suggested that as it was so near he would go and look at it, but the speculator did not seem inclined to show it. Mr. Longyear could not talk Norsk and the man spoke but little English: the negotiations did not go far. The glamor of American money was very dazzling in the eyes of Viking speculators and their hopes of diverting the golden stream into their own little enterprises were easily aroused.

3. A VISIT OF INSPECTION

The *Munroe* arrived about midnight of July 12, and brought a cargo of coal which as the stevedores worked only three hours, it took two days to discharge; with a proper outfit, it ought to have been done in an hour or two. After ten days of waiting, all of which—and eighteen besides—had been rainy, they got word on Saturday, the 15th, about ten in the evening that the vessel was ready to sail. They sent their "dunnage" down from the hotel, protected by a tarpaulin, as it was still raining, and followed "slumping along in the mud and rain, glad to get away from Tromsø."

They sailed at one o'clock in the morning, and only after they were fairly out into the Arctic Ocean did the weather begin to clear and a strong northeast wind made the little vessel roll and gallop.

As the sea grew increasingly rough, "everything not held in place was liable to skate across the floor, and it was difficult to walk. We spent some time on the bridge," continues Mr. Longyear's narration, "watching the seas and occasionally crouching behind the canvas shield to dodge a shower of spray. The air was cold and the wind drove it into us so that short stops outside were the rule, although Scott would stand on the bridge for two hours at a time."

An Inefficient Steward. The ship's steward was described as "a gold brick"; the first breakfast he gave them was beneath contempt; though he promised better things when he should have found all his implements and got acquainted with his stores. His promises proved to be fallacious; his meals were not appetizing; yet there was a plenty of "good things on board." He claimed to know English, but could not understand anything that was said to him. Mr. Longyear asked him for some beaf-tea, but, instead, ordinary tea and beef-stew were brought, and he finally confessed that he did not know what was meant by beef-tea.

The rolling of the ship was so violent that Mr. Longyear felt a legitimate pride in his prestidigitatorial feat of keeping "a plate of slipping crackers (*kjex*), a dish of beef-stew, two

mugs, tea-spoons, knives, forks, napkin, tea-pot, sugar-bowl, condensed milk-can, pot of tea and pot of hot water," from dancing a minuet on the deck. As it was, the pot of hot water slid off the tables and drenched him.

He put the hot water, tea, and milk on the lounge behind a suit-case, the plate of crackers on a crumpled-up steamer-rug, the mugs on the lounge, and the other things he balanced on a tray on the table by lifting and lowering the edge of the tray nearest him until he "got tired of the gymnastics, and told the steward to take all but the tea and crackers away."

As they had stayed in bed nearly all day, Mr. Longyear and the Captain played dominoes nearly all night, though the sea was still so tempestuous that they often had to hold down all the dominoes at once to keep them from sliding off the plush table-cover.

On the morning of July 18, the motion had ceased, and it was evident the ship was near the ice-pack. In fact they were practically surrounded by it.

Shark-fishing. They met a small smack which proved to be a shark-fisherman, and the Captain told how this kind of fishing was managed: "They fish in one hundred and twenty fathoms of water, anchor the boat, put baited lines over and wait for bites. If the fishing is good, they often get six or eight an hour, taking only the livers, from which the 'finest cod-liver oil' is extracted. A big shark's liver will yield from one and a half to two and a half barrels of oil."

The next day they ran cautiously through the ice, managing to strike only small pieces. The bitter cold wind had died down, and the atmosphere was much less frigid. Many seals were seen in the water, all looking at the ship as if wondering what kind of an animal it was. Hosts of birds, auks, teste, fulmars, and other varieties circled around.

On the 20th the ice still hedged them in on all sides. The Captain calculated they were about opposite Prince Charles's Foreland, which finally showed up under a thin layer of fog; occasionally the disc of the sun could be seen. At four in the afternoon they entered the Ice Fjord, still plowing through

what seemed to be solid ice, which yielded as the vessel pushed her nose into it. Mr. Longyear says:

"A steel ship could have done the same without difficulty, but the officers of the steel ship would not have felt so easy in their minds as we were on our stout wooden one."

They finally passed through a belt of quite heavy ice inside of Advent Bay, and tied up at the Coal Company's dock, where Gibson and all the others were waiting in eager anticipation. Their cargo-ship, the *Rondø,* should have got there before they did, but it was nowhere to be seen, and no smoke on the horizon indicated that she was near.

Inspecting the Mine. After visiting the new power-house and the plant before the mine, they spent the night on the *Munroe.* The next forenoon they looked over the stock-pile, and after dinner at the Superintendent's house they visited the mine itself, and for a while watched the miners breaking out and removing coal from the "long wall." They examined the "roll or fold in the formation, where the vein seemed to run out to an edge and disappear." It was evident that they had struck the edge of an "island" of sandstone in the vein, the boundaries of which would have to be explored and determined. But as there were about two million tons of coal "in sight" the management was not worrying much about it.

They returned to the ship at six and after a good supper prepared by the mine-steward, borrowed for the purpose, they started for Green Harbor where they arrived about midnight and were surprised to find the *Folsjø,* one of their cargo-ships, lying at anchor. The captain came aboard the *Munroe* and reported that the wind had been too strong for his ship, which was in ballast, to steer in the ice. They visited the whale-station and dropped anchor in the little bay after which they turned in for a six hours' sleep. After breakfast they visited the whale-works. Mr. Longyear says:

Whale-works at Green Harbor. "We found the process of cutting up whales, trying out the blubber, making all the waste-products, meat, bones, etc., into fertilizer, in full operation. The guano factory was so full of dust that we could

DEAD WHALES IN THE BOOM AT GREEN HARBOR

not see ten feet into it. The machinery was stopped soon after, and fifteen or twenty men came out into the open air with their clothes, faces, hair coated with the odoriferous dust. Each man had a handkerchief tied over his nose and mouth which he removed (*i.e.* the handkerchief) as he came out of doors. I suppose that the richly-laden air from the platform where the whales are cut up was delicious to them! The dust soon settled in the factory and we went in to see the rather simple process of drying and pulverizing and mixing the dessicated meat, bones, etc., and putting it into sacks for shipment. When the machinery again started up we beat a retreat to the open air, wondering how men could be found who would work in such a place.

"We walked all around the works, saw men in big boots wading through square yards of jiggling, jelly-like masses of flesh cut into strips eight or ten feet wide and from thirty to fifty feet long, which were attached by hooks and lines to a steam-winch and pulled along the platform to the place where they are cut up into chunks for the dryers. The men doing this work and handling this over-ripe meat seemed to have the juciest and best-perfumed jobs I have ever seen. They were not doing this particular kind of work when I was here before."

The Green Harbor Mine. They then went up to the mine, situated on a hill-side over four hundred feet above the sea, and about three thousand three hundred feet distant from the shore.

They found the "entry" had penetrated the hill a distance of over five hundred feet and as it dips from the horizontal eighteen degrees, it was not a pleasant promenade, especially as one has to stoop all the way, the passage being from three and a half to four feet high, and from five to six feet wide. The vein of coal had apparently "pinched out," but it was planned to discover whether or not it was a local feature or actually the edge of the field. Mr. Longyear did not think it of much consequence anyway, as the Green Harbor coal was not of the first quality.

Erecting the Wireless. They visited the Green Harbor Camp and had a cup of coffee. At the whaling station they found a large force of Norwegians engaged in erecting the wirseless-telegraph station, which was to be situated not far from the whaling station; in other years it would have been an extremely unpleasant proximity—before the guano factory absorbed it—the amount of odoriferous waste refuse would have been enormous, so that even the millions of scavanger gulls would take a long time in stripping the flesh from the bones.

On their way back to Advent Bay, Robert Longyear and Turner both shot at some Greenland seals that were lying on the ice; but it could not be determined whether they hit them or not, for they tumbled off into the water and disappeared from sight.

A steamer was seen far out in the ice off Prince Charles's Foreland, and they ran out to see if might be the *Rondø,* their missing cargo-vessel, but it proved to be the *Alma,* another of the coal-fleet, which reported that she had not seen the *Rondø,* but had fallen in with the *Folsjø,* in the ice, and given her a supply of bunker-coal. They reached Advent Bay about ten o'clock in the evening of Saturday the 22d and anchored near the dock at which the *Folsjø* was lying. She had been delayed by the ice and arrived so late that no loading had been attempted. As the Norwegian Sunday begins at six o'clock Saturday night and ends on Sunday at the same hour, and the men demanded extra pay for working on the holiday, and that would have cost the Company as much as the pay for the two ships would amount to, the demand of the men was refused.

4. A HUNTING EXCURSION

The next day was fine, with brilliant sunshine.

Mr. Longyear, his son, and Turner walked out on the delta formed by the glacier-stream flowing down the valley, and took panoramic photographs. At five o'clock they started on a ten days' hunting-trip, one of its principal features, at

least in order of time, being to hunt the *Rondø,* which was three or four days overdue. They cruised north along the Foreland until the ice was left behind. The next day they met a whaler towing dead whales. Her captain had seen nothing of the wanderer. They then turned south, passing the coast of Spitsbergen twenty or twenty-five miles out, in order to get a wide circuit of view, but no ship was visible. Captain Naess thought she must have returned to Norway. Opposite the South Cape they met fog and an ice-field stretching far to the south. This they skirted, hoping to find it loose enough to penetrate in order to get to the bear hunting-grounds to the east of the island. Mr. Longyear's log says:

Mr. Longyear's Log. "We got around the south edge of the ice-field about eleven o'clock in the morning, and steered east and north-east across a gently-heaving sea. A gentle breeze from the east just rippled the water but did not move the light fog which prevented our seeing more than a mile ahead. About nine o'clock in the evening we found large masses of ice scattered over the surface of the sea, many of them of quaint or grotesque shapes, all 'kow-towing' to one another in most dignified and stately ways, as the gentle swells moved them up and down. At a little distance in the fog they looked like giant ghosts of uncanny shapes, performing a stately dance to slow music. A few auks were always in sight, and occasionally a seal was seen swimming near the ship. The Captain estimates that by midnight we shall be between the Thousand Islands and Hope Island, and that we may find bears at any time the weather gets clear enough to see them."

A Herd of Seals in the Fog. The next morning, about eleven o'clock, a herd of seals was reported in sight on the ice ahead and the ship was stopped. "About noon," continues Mr. Longyear's log, "we left the ship in two boats. Robert and I in one, with some sailors to row, and Scott in another with two sailors. The fog had settled over the surface of the water and ice, but the ship towed us for about a mile in the direction of the seals, and then we rowed for two hours among the floating ice-pans and icebergs, but found no seals.

In the fog we had lost the direction. After we had been out about an hour the steamer's whistle was tooted at intervals to give us the direction, for we could not see it a quarter of a mile away. Returning to the ship, we lay there for several hours, waiting for the fog to lift, and when it did the ship and the ice and the seals had drifted apart. So we continued our cruise, sometimes able to see for considerable distances, but generally the fog was too thick to see far."

Luring Bears. The same conditions prevailed the next day. In the afternoon, as they were not far from where Polar bears had been killed on Mr. Longyear's former excursion, an iron pot was brought out on deck, and in it a fire was started on which to burn blubber and bones for the purpose of luring stray bears. But the ruse did not avail. As the fog was persistent, Captain Naess dared not venture toward the best hunting-grounds or waters for fear the vessel might get entangled among the reefs and rocks of the Tusendøer, and be unable to find her way out. There were plenty of seals swimming about the ship evidently full of curiosity: "They pop their heads up out of the water, look us over, and rapidly swim away under water, coming to the surface a long distance off and appearing anxious to put space between themselves and the ship."

Heavy Swells and Big Ice-pans. At five o'clock of the 29th, it was decided to work out of the ice in the direction of Advent Bay. Three hours later a strong south wind blew away the fog and the sun came out: yet the region where they wanted to hunt was still heavily veiled. The next day was Sunday. As they emerged into open water, they were met by great heaving swells rolling up from the south; the wind veered to the north and blew bitterly cold. When they "picked up the land," they were on the east side of the wide Stor Fjord. Once more they attempted to reach the hunting-region, but they soon met the ice, heavier and thicker than ever, and the swells increased, making passage very dangerous, some of the ice-masses being several hundred feet long and wide, and rising out of the water twenty feet. They proceeded north until the

HUNTING FOR BEARS

IN THE ICE FLOES EAST OF SPITSBERGEN

surf was seen breaking on some of the reefs of the Thousand Islands, and as there was no opening they turned south again with ever-increasing swells breaking against the solid ice.

Shark-Fishing Off South Cape. When they awoke the next day, they were passing the South Cape again. During the afternoon they swept by a shark-hunter's smack riding at anchor. A shouted "parley" elicited the information that the water there was eighty fathoms deep, and that they had all their barrels full of livers to be taken to Norway, and were filling sacks with them. Several men in oil-skins were serenely attending to their lines while the big seas swashed over the deck.

A little later they passed a hunting-smack, and a boat was sent over from it. The men in it did not board the *Munroe,* but a line was made fast to their boat. It was learned that the day before the smack had narrowly escaped being crushed by the grinding ice: only by the last resort of setting nearly the whole crew of twelve men to work towing her out by a line from the boat to her bow did they manage to extricate themselves unharmed.

During the first day of August they steamed along leisurely in a lessening sea but still surrounded by fog. The mountains of the west coast of Spitsbergen could be seen rising above a thick bank of cloud. About five o'clock in the afternoon they reached the entrance of the Ice Fjord, near Cape Starashchin, where two hundred years ago the Russians had a hunting-station. The Cape was named for a Russian huntsman who lived there Winter and Summer for thirty years.

A Salmon-Stream. Mr. Longyear had heard of a salmon-stream called Russekjiela at this point, and he wanted to try his luck; so they put ashore near the mouth of the stream and found men from the Green Harbor Whaling Station fishing with nets stretched across the stream so that no fish could get by. They had two barrels or so of salted salmon but no fresh fish. It was not the right season, otherwise there would have been thousands of them. Mr. Longyear went up to the foot of the first rapids and tried casting a small spoon but

without success; what salmon had escaped the nets, he thought, had gone up to the glacial lake a mile farther inland.

Turner had brought along a shot-gun and had killed an eider-duck before they landed. Mr. Longyear says:

A Good Bag of Geese. "After trying the fishing at the foot of the rapids, I went to the top of the high banks, a hundred feet or more above the river, and saw a flock of ducks, as I thought, at the foot of a rapids farther up, and called to Scott, who went and shot them all—eleven of them. He then called out that they were geese. Two of the sailors with big boots on waded out into the rapids below and caught part of them as they floated down, and those that drifted against the oposite bank they also recovered. They seemed to be young geese, or a sort of brant, with which none of us was familiar. Subsequently they learned that the fowl were Hutchins' geese.

A Glacial Lake. "We walked inland for about a mile over an almost level plateau from which we could see the lake above referred to, and the remains of the glacier which had once filled the entire valley below us and had also covered the plateau on which we stood. The bottom of the valley was level, and the stream has cut a narrow, winding channel twenty or thirty feet deep in the gravel, boulders, sand, mud, etc., left by the ice as the glacier retired up the valley.

"On the top of the plateau we found the remains of two ancient Russian dead-fall fox-traps. The wood was not rotten but had weathered white and was very brittle and tender. The sticks had probably lain where we saw them for one or two centuries, and showed that wood does not decay in the Arctic; but it seems to disintegrate and blow away fiber by fiber. Many of the sticks had deep channels weathered into them, and the surfaces of all were white and fuzzy.

A Swarm of Snipe. "At the mouth of the stream we saw a bunch of snipe running about the beach in which there must have been a hundred or more. None of us had ever seen so many together. Scott said they looked like flies, and that was a good description of the swarm as they ran and flew over the heath.

"A small, comfortable hut stands near the mouth of the stream, probably built by a Norwegian who claims to own the stream and the fishing. It was occupied to-day by the men we found using the nets."

5. THE RETURN

The *Munroe* returned to Advent Bay about midnight, finding the *Locksley* nearly loaded and the *Heim* at anchor waiting to be loaded. The *Rondø* had reached the dock after the ignorant pilot had gone two hundred and eighty-five miles too far north. The Captain, discovering the mistake, had taken charge and navigated her safely back to Advent Bay, where she had taken on her cargo and returned to Norway.

Mr. Longyear had an opportunity to talk over mine matters with Gibson and help plan for additional equipment. He was greatly pleased when Gibson told him that although he desired to return to America, he was willing to stay on until certain matters that were pending should be settled.

About five o'clock on the afternoon of August 3, the *Munroe,* having finished taking on her cargo of coal and with everything shipshape, started on her return-trip to Norway. Their larder had been increased by two eider-ducks which Turner had shot, and by nine teste, "a black and white water-bird with bright-red legs, about the size of a bantam-chicken," which he and Robert Longyear had shot on Advent Point that afternoon.

An Eider-Duck Habitat. As Mr. Longyear wanted to secure geological specimens at Cape Boheman, the ship headed in that direction and came to anchor about four miles off shore, a wide shoal or reef making it impossible to get nearer. On the way to the landing-place, which they reached by a small boat, they stopped for a few minutes on one of the little keys where the eider-ducks nest. Most of the mother ducks had gone away with their broods, but a few were still seen, each sitting on three or four eggs. The men were interested to note how all the little islands had hundreds of ducks, many of them

standing on the "sky-line" watching them, and flying up in flocks if the interlopers got too near.

Dwarf Birches. They landed on the shale-beach and walked a mile or two, securing a number of fossils and other specimens. Then the steamer sailed for Coles Bay, and they went ashore to find some of the dwarf-birches which grow there in small patches. They were fortunate to discover them within a few minutes after they had started to climb the hill back of Ayer and Longyear's sod-covered hut. Mr. Longyear put one of the shrubs in an empty fruit-can and tried to bring it back to America; but it died on the way. He intended to give it to the Arnold Arboretum at Jamaica Plain.

The hut mentioned had been built some years before on the Ayer and Longyear property by a Norwegian hunter, but in consequence of some lawlessness in Norway he had "faded away" and had never applied for the compensation which the owners of the land were ready to give him for his work. It had been used as a prospecting camp and as a winter-station for the Advent Bay hunters, as well as for a stopping-place for the men using the overland route between Advent Bay and Green Harbor. Random hunters had also made a convenience of it, and left it in a filthy condition.

A Scientific Camp. The ship then ran over to the west side of the Bay to see who were in two tents visible on the Green Harbor property. Captain Naess and Mr. Longyear went ashore and found a camp of the Norwegian Government's Scientific Expedition, the leader of which was making a map of the region between Bell Sound and the Ice Fjord. When the *Munroe* stopped at Green Harbor to land some men, none of the other passengers got out; they were all asleep. When they awoke the next morning they were rolling easily toward Norway, and after an uneventful voyage arrived at Tromsø at ten o'clock in the morning of August 8.

A Norwegian Bath. One of their first concerns, after securing their laundry which had been left on their departure north, and getting their luggage together, was to have a Christian bath. In Tromsø there is only one bath-house: it has five

SOME GAME BIRDS

HUNTER'S HUT, HORN SOUND

rooms furnished with tubs, three are for men, two for women; these have to do service for the eight thousand inhabitants, who do not as a rule have bath-rooms in their houses. The water was colored like strong tea, and the temperature of the room was 110° Fahrenheit. Having resumed the garb of civilization, they proceeded to the museum and identified some of the birds they had seen in the North. They then walked out to the end of the well-made stone breakwater which protects the harbor and looked down at the fish, star-fishes, sea-urchins, and "crab-arrangements" enjoying life in the clear, green water.

The steamer *Richard With,* of 900 tons, was to sail the next day at three o'clock for Trondhjem, and the party took passage on her. The hotel-clerk was ordered to call them at eighty-thirty, and this was promptly done, but it was ten before their breakfast was ready and only then when they threatened to go elsewhere for it.

English Explorers. Just after two the English explorer, Mansfield, who had been operating at Bell Sound in Spitsbergen, came to see Mr. Longyear with two of his directors. He had heard of the fracas at Advent Bay, and was much pleased at its outcome. He wanted to make an offensive and defensive alliance for mutual protection in case of insurrections, strikes or riots, but Mr. Longyear did not think it wise to commit his company to such a compact. Just before the steamer sailed Mr. Longyear met the captain of the *Folsø,* one of the cargo-steamers, and was informed by him that the Advent Valley coal was better for steam-making than any other he had ever tried, that ten tons of it would do as much as twelve tons of the best English coal.

After a day or two at Trondhjem, attending to various matters of business, Mr. Longyear, with his son and Mr. Turner, proceeded by rail to Kristiania, where he had another interview with Minister Swenson and with Curtis, clerk of the United States Legation, who had been in charge of much of the Spitsbergen affairs transacted between the two Governments.

From there they went to Copenhagen, and went on a sight-seeing tour of the city in the care of a guide who could not speak English so well as the young woman who drove their cab. The guide informed them that "they had their first rain in six weeks tomorrow morning," by which cryptic remark they inferred that he meant the morning before.

They visited the church of Vor Frue (Our Lady), the odd stairway of which, circling around the spire in spirals is mentioned by Jules Verne and they climbed the four hundred steps, the upper one hundred and fifty of which are on the outside, but protected by a heavy open-work iron balustrade. Toward the top, the spire is only two feet in diameter, and the steps are only a little more than a foot wide. Robert felt nothing but contempt for the boy in the Jules Verne story who became dizzy and seasick from fright before he reached the top.

The Disappointing Museums. They also visited the Glyptothek, Thorwaldsen's Museum, and the Rosenborg Palace Museum. Mr. Longyear thought that there was very little good art to be seen, and he could not understand why such a great sculptor, "with Skandinavian mythology to draw upon—almost a new field—should have spent his time mulling over the overwrought field of Greek and Roman myths." Nor did he care for his sculpture portraiture: "A lot of his work was in the shape of portraits of customers, and they were all right as long as he stuck to busts, but when, as often, he made full figures in classic costumes, the faces decorated with mustaches or 'mutton-chop' whiskers, the effect is absurd."

He was surprised to find the collection in the Rosenborg Museum was for the most part confined to relics of the Kings of Denmark, "generally a room to each King, their clothes, seedy and faded." "The people," he commented, "paid for them, and now the people can go and see what part of their ancestors' money was spent for."

From Copenhagen they went by rail to Hamburg, and there Mr. Longyear and his son parted with Turner who took tickets for London, while the others went to Paris where they joined Mrs. Longyear, all returning to London together where

again they found Turner, who had an invitation to spend a week-end for grouse and deer shooting, and for discussion of a plan for Turner to go to Sardinia as assistant mine-manager.

In London they all went to see a new play by "an anonymous author" entitled "Fanny's First Play." Of course this was afterwards acknowledged to be by Bernard Shaw.

The great English strike was still in progress and it seemed as if society were sitting on a smouldering volcano: the difficulty in getting labor made the sailings of steamers for America very uncertain and bookings were made accordingly. Finally they got word that the *Arabic* would sail on September 1 for Boston. They and their effects were safely landed at that port by noon on Friday, September 11.

6. A GERMAN ACCOUNT OF THE MINE

During the Summer of 1911, Wilhelm Filschner and Dr. Heinrich Seelheim visited Spitsbergen on what their book calls "eine deutsche Übungsexpedition," or text-expedition to the central district of the eastern shore of the Ice Fjord. Their story of a journey on sledges across Spitsbergen from Temple Bay by way of the Post Glacier and the Prince Luitpold Glacier and back begins with a brief historical sketch of the discovery of the Archipelago and of the various scientific expeditions that had been made previous to theirs. They had to go to Advent Bay, and they thus describe the place and the mine:

A Tourist-Resort. "It is a southerly branch of the Ice Fjord and the best-known among all the bights of Spitsbergen. Hither come the great tourist-steamships of the Hamburg-American line, of the North-German Lloyd as well as of the Norwegian Companies. One of these in 1896 made the experiment of maintaining the tourist hotel on Advent Point during the summer season. But apparently at that time Spitsbergen was not ready for it, and a year after it was opened the enterprise came to an end. But for the last two or three years an industrial life has been established here. The rich discoveries of remarkably excellent coal have attracted adventurous capitalists, and an American-Norwegian Corporation,

the Arctic Coal Company, has developed a mine on a large scale, and this very summer its preparations were to be practically completed.

"We tied up at the Company's mole, which is built out one hundred and fifty meters into the Bay. While the geologists were conducted on a trip to the inside, we entered into negotiations with the director of the Company in regard to our return. He met us cordially and offered us passage on the little collier *Munroe,* which was expected to return to Hammerfest from Advent Bay on August 26."

The Northernmost City. The author remarks in a note that Hammerfest had hitherto enjoyed the reputation of being the northernmost city in the world but would now have to yield that proud preëminence to Longyear City. Among the scientific men who accompanied them were the learned professors Przybyllok and Potpeschnigg, who were studying the fauna and geology of the Island. On their way back, having accomplished the transit successfully, though not without difficulties and even dangers, they were surprised to find on the terrace not far from the foot of Colorado Mountain, somewhat back from Sassen Bay, a complete little house with a tablet erected about twenty meters behind it and bearing this inscription which they transcribed in German fashion:

"This land eastward to 18° E. from Sassenbay and north of Sassendal to 78° 35′ N. is claimed bei the Scottish Spitsbergen Syndicate August 21, 1909. Wm. S. Bruce." The authors add: "So then this well-known explorer has prudently staked out a piece of land before the American Company, which is coal-mining in Advent Bay, or the Norwegian speculators, had a chance to annex everything." The account proceeds:

Dr. Bruce's Block-house. "Bruce, as the tablet announced was here exactly a year before us. . . . The hut was like a little block-house, constructed of rough-hewn beams one on the other, and the cracks are plugged with earth and moss. It consists of the living-room proper, large enough for two persons to sleep in, and a small vestibule which apparently

served as a stall for a pony. Sheep also seem to have been kept there. There were double windows and a stove suitable for cooking was designed to keep the little habitation warm without difficulty. The abundance of drift-wood would furnish fuel at no expense."

When they had returned to the West Coast, however, wind and tide were against them, and they tried to tow their large boat, but the mouths of streams hindered them; finally their frail craft came to grief on the rough, sharp rocks, and they had great difficulty in saving their photographs and scientific instruments. The jaunt along the shore was excessively difficult, especially in their wet and famished condition, but in time they arrived at the deserted coal-mine of the English company, and there they found at least shelter. When they mounted the steps of the engineer's house one of their number played the March from Tannhäuser on the horribly-discordant piano, and the authors say: "Very rarely indeed have men so rejoiced over musical sounds as we did then in the bare abandoned settlement on the east shore of Advent Bay." In a chapter entitled "The Northernmost Mine on Earth":—the narration proceeds:

Description of the Mine. "So full of vicissitudes is human life here below! Yesterday we were still on the shore in fog, snow, and storm, where finally after hours of futile labor everything had to be abandoned, and now, only a few miles from the place of our going ashore, we found a fine modern dwelling-house with modern conveniences, where we could enjoy a well-earned rest. The immediate proximity of wild loneliness of nature and of civilization never before presented itself more completely to our consciousness than here at this spot where a few years ago the reindeer grazed in idyllic peace. And what has brought about the introduction of the most modern culture in the midst of this wilderness? It is the same practical human spirit and love of gain as prospects for diamonds in the barren wilds of Africa, and digs gold in the fierce solitudes of the Klondyke, the spirit that will compel from the soil the treasures hidden in its rich abundance.

"Only a few years ago were coal-deposits worth mercantile exploitation discovered in Spitsbergen. Occasionally small quantities of this coal were brought back to Norway by Norwegian seal-catchers who penetrated these inner bays. When it was proved that the coal was of good quality, several speculative companies were organized to exploit the mines on a larger scale. An English Association undertook to drive shafts on the east shore of Advent Bay, and showed conclusively that an abundant extension of the coal-deposit was worth working for profit.* At this locality there is an almost horizontal seam of anthracite coal at a height of about one hundred meters above the level of the sea. Geologically speaking, this coal is of comparatively late formation, since it belongs to the Middle Age or Mezozoic period of our world's history, and, different from the larger part of our German coal-deposits, as for example, in the Ruhr or Silesia coal-district which came into existence in a far distant age—that of the Paleozoic.

A Mushroom City. "When investigations had shown the occurrence of a seam a meter and a half in thickness, the English Company immediately proceeded to erect great works for its exploitation. A shaft was driven into the coal-seam; a railroad was built directly from the entrance down to the shore in order to facilitate the lading of the coal as it was mined; a mole built out into the Bay permitted colliers to come alongside; a boiler-house and engine-room were constructed to furnish steam and electricity for the transport of the cars which ran on an aërial wire and for the other machinery.† Then quickly out of the ground grew a little city of

*German descriptions of Spitsbergen do not always convey accurate information. The English Company, as we have already seen, having proved nothing of commercial value, ended in a disastrous failure. The height of the mine above the sea is given by guess apparently. No anthracite coal has been found on Spitsbergen: it is a semi-bituminous coal. The Spitsbergen coal is in the Tertiary formation.—J. M. L.

†No mole was built; the little coal shipped from this property was loaded from lighters. There was no boiler-house. A power-house was built and partly equipped with three producer-gas engines, but none of these was ever full installed. There was no aërial tramway. There was a tramway on a trestle.—J. M. L.

ON THE FRONT OF DAVIS GLACIER

ICEBERG IN STOR FJORD

residences for the officers and the miners, of store-houses, and other buildings. All this had to be constructed quickly, for the time when work can be done out of doors in Spitsbergen is limited to the few summer months, and yet the whole affair was in working order in two or three years.

Ready-made Habitations. "In order to accomplish this, all the material required there had to be furnished as nearly ready as possible. So the wooden houses were all made complete in Norway, the various parts provided with numbers and other marks, then taken down and shipped in lots to Spitsbergen, and on arrival there again put up. Only in that way was it possible immediately to provide the laboring men there with the necessary habitations. Even at the present time one can see on the beams and boards of these houses the marks by which they were distinguished when they were first fitted together, and which enabled the carpenters to put back every piece in its proper place, and yet these houses are by no means so very simply made. It was particularly necessary to protect the men against the extreme winter-temperature, so all the dwelling-houses are provided with walls of more than one facing. Generally there are two double casings of boards, giving an air-space of several inches. The houses for the men in charge are built still more carefully; their walls have three layers, provided not only with air-space, but also with strips of felt, cork, or linoleum, material suitable for conserving heat. The houses are moreover quite comfortably arranged; most of them are of course long, hall-like rooms where several persons bunk in together, but the residences of the officials consist of a row of quite comfortably arranged single rooms.

A Scene of Desolation. "This enterprise was set on foot in 1906, and for two years a busy life obtained here. Today it is all dead. The dwelling-houses stand deserted, the empty shafts stare out into the landscape. Many of the supports for the railway which carried the coal-cars down to the shore are broken off; the action of the waves and of the winter-ice has damaged the wharf, and on the shore are lying several broken boats. Close by the engine-house is a small

mountain of coal; but no smoke rises from the smoke-stack; the engines are still, and the rust is steadily devouring them as well as everything else metallic lying about unprotected. Nothing has been carried away or packed up. It seems as if the whole settlement had been abandoned in the utmost haste.

Abandoned Treasures. "This impression became stronger still as one entered any one of the dwelling-houses. We made our way into that of the managing engineer. Everything stood there in complete order. Here was the piano on the opened rack of which lay pieces of music; there, a bed neatly made; in the dining-room, a perfectly-furnished table with remains of food and an opened bottle of wine; near the stove, the coal-hods full of coal; pictures hung on the walls, and on the commodes and desks trinkets of a personal character, like family pictures or little objects of bric-à-brac; everything simply abandoned. It gave the impression that all these things had been left by the occupants with the expectation of speedily returning; and that was the fact of the case.

"In the Summer of 1907 difficulties were encountered in the work of the mine. Toward the end of the Summer it was abandoned by every one. They expected to return the next season; but during the Winter it went into bankruptcy, and the work was never resumed. So everything was standing and lying about just as it had been left in 1907; only a watchman had remained there the two following years and then even he had not come back again.

"Whether the mine will ever be worked again seems still undecided, but it is said that it will probably have to be given up because an enormous deposit of hard rock separating the layers of coal has been discovered, greatly hampering the mining of it and making its profitable exploitation very dubious."*

The Crossing of the Fjord. The six men made themselves tolerably comfortable in the chief engineer's house, building a big fire, cooking their food, and helping out their

*There were several of these seams of rock, and they were known from the time the vein was first found.—J. M. L.

slender larder with the reserve-stores left by the former occupants,—conserves, dried vegetables, and rice.

The next day they repaired one of the small boats drawn up on the shore; by improvising oars and other gear, they crossed to Longyear City, one rowing, another paddling, another steering, and Przybyllok baling with desperate energy. It took them an hour and a half to make the passage. They were welcomed by the director and the resident doctor who told them that the *Munroe* was expected the next day, and that they could get passage in her for Norway. The narrative thus proceeds:

"Our first proceeding when we got up the next morning was to go down to the Bay to see if the *Munroe* had arrived. But nothing was to be seen of the ship, and we concluded that she had been compelled to make a long détour on account of the drift-ice pressing up against the coast. So then we had plenty of time to take a leisurely survey of the surroundings of Advent Bay.

Klaus Thue and His Fossils. "In the forenoon we strolled a short distance out toward the west to the low-lying peninsula which bounds the Bay on that side in the direction of the Ice Fjord. On the shore there was a small tent. Here for a number of years during the short summer-season has dwelt an old Norwegian, Klaus Thue,* who drives a good trade in souvenirs with the tourists coming on the great German, English, and Norwegian steamships, selling the fossils which he has picked up in his long walks. It seems to have been a quite profitable business for he looked well-fed and well-clad.

A Tragic Experience. "Klaus Thue knows this region better than any one else, and it always tempts him back, although he might seem to have good reason for avoiding it since he was one of the chief participants in a tragedy which took place here some years ago. He was one of the four fishermen who were compelled to spend the Winter of 1895-6 here. In a small Tromsø cutter, the *Ellida,* they had been cruising along

*This same Norwegian afterwards became one of the claimants of the Arctic Coal Company's land.

the west coast during the Summer, and were shut into Advent Bay by the unusually early arrival of the drift-ice. Obliged to abandon their vessel, they prepared to spend the winter on the shore. With primitive means they built a hut which afforded them some shelter against the elements; but when it ultimately proved that it was going to be too damp and dangerous to health, they improvised sledges and skis and made their way across the frozen Ice Fjord to Cape Thordsen, where stood the well-constructed shelter-camp of the Swedish Expedition which had taken part in the international survey of 1882-3. There they remained for some time. One of the four men went out hunting and did not return: nothing was ever heard of him again.

Attacked by Scurvy. "The three others one day set out for Advent Bay to fetch provisions, but while there they were attacked by the scurvy which so weakened them that they were unable to get back to Cape Thordsen. On March 30 this terrible disease carried off Andreas Holm. As the ground was frozen solid and they could not dig a grave they carefully put his corpse into two tubs.

"Klaus Thue and the other surviver, Niels Olsen, finally succeeded in escaping from the frozen solitude. When the masses of ice began to break up, they attempted to reach the west coast in a small boat, hoping to find some ship. For many days, though ill with the scurvy, they drifted about on the open water. Their only nourishment was a couple of birds which they devoured uncooked.

Rescued. "Finally, on June 18, they were picked up by a sealing-ship which first took them to the place where they had spent the Winter, in order to bury their dead comrade. A simple, plain, wooden cross indicates the place where he lies at rest. No pompous inscription commemorates the man's tragic end. 'Andreas Holm fra Tromsø' is roughly carved on the wooden cross-pieces. Not far off the remains of their winter-hut can be seen standing on the desolate ground. The larger part of it has fallen to pieces naturally or has been carried away as souvenirs by irreverent tourists. But the

frame-work is still recognizable, and the beams of the roof still stand as an uncanny memorial of that tragic winter.

"We looked over the petrifactions which Klaus Thue had spread out on a table before his door, bought a few, and engaged in conversation with the old white-bearded Norwegian, who, in his simple way, gave us many details of those days, and showed us over the flat peninsula.

Tourist Cairns. "Here also had stood the little tourist-hotel erected by the Vesteraalen Steamship Company, and conducted by them for two summers. Near it was a row of peculiar tablets. When we first saw them from a distance we thought they were funereal crosses, but they soon proved to be something quite different: they were only memorials erected by the tourist-steamers which about ten years ago had begun to come here every summer. The passengers of the two great Norwegian Steamship Companies' vessels had made it comparatively simple for them. A plain iron stake bore a series of tablets on which the year of the successive visits was indicated. On the other hand, it is an exceedingly unpleasant duty to call attention to the tasteless way every arrival of a German steamer has been commemorated by a special and almost always hideous monument for the amazement of the world. It may be of the greatest importance for the individuals concerned that single stones piled up around the monument in question, should tell in glaring oil-pigments that on such and such an occasion Herr Lehmann of Berlin or Frau Meyer from Saxony had honored Advent Bay with their presence, but the question arises whether this information is in reality so essential for their contemporaries. The effect of this coarse manifestation of our fellow-countrymen's *Kultur* was particularly painful, because it contrasted with the simple memorial death-crosses erected over the graves of men who, after terrible sufferings and illnesses, had fallen victims to Arctic conditions, as for example that of Andreas Holm, the Norwegian whose story we have just related.

The Germans Inspect the Mine. "In the afternoon we accepted the invitation of the Director of the American

Company to inspect their works. On this side of Advent Bay also coal is found and in paying quantities. It is not at all the same kind of deposit as that worked by the English Company, but of a much later formation, belonging indeed to the Tertiary Age which, in other regions of the world, furnishes only that kind known as Braunkohle or Lignite. But this here is a lustrous black coal which closely resembles genuine anthracite, especially as regards its proportional content of carbon, which, as we know, increases with the age of the coal, so that for example our purest coal, the anthracite, exists in the deepest and oldest deposits of the earth's surface, while the impurer coal, like lignite or peat was formed in later periods of the earth's history.*

"The seam which is about 1.25 meters in thickness, is almost perfectly horizontal, and lies about 150 meters† above the sea. We climbed up a zig-zag path over a tremendous heap of talus which has been dug away before the entrance to the mine. At the top we found a great wooden scaffolding which serves as a delivery-platform, on which the coal is brought from the interior of the mine by means of small tip-cars to be emptied into the baskets of the aërial railway, and thus sent down into the valley. Close by an excavation effected in the solid rock gives room for two electric motors, which furnish the power for the railway into the mine. There is also a small lamp-closet from which each of us got a light and started in on our exploration.

"In the principal shaft leading directly into the mountain in the midst of the seam one can walk erect and in comfort, for the coal lies horizontally, and sufficient of the overhang, that is, of the rock superimposed on the coal-seam, has been cut away to give a rather high tunnel for hauling and ventilation. Along the floor runs a railway track, and one can hear a delivery-car come rolling out from the bowels of the mountain, and see the lamp which the conductor has hung on in front.

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*The coal is a soft semi-bituminous and not at all like anthracite.—J. M. L.

†The height is 750 feet—over 200 meters.—J. M. L.

A White Coal-mine. "In most respects the appearance fairly well coincides with what we are accustomed to find in the principal cross-sections, as for instance in our Rhenish-Westphalia mines; but one thing is quite different in this Arctic mining. In other climates the walls of black coal or of adjacent rock surround the person who penetrates the shafts; but here they are pure white, and when the lamp is hung on the side the light glitters in thousands of sharp reflections into the eyes of the spectator. It is a coating of fine ice-crystals which cover the walls. Tests have shown that the temperature of the interior of the mine is about 4°. The humid atmosphere pouring into the shaft from the outside is condensed and precipitated in millions of crystals. And thus the extraordinary spectacle of a white coal-mine is presented to the astounded beholder. Nothing like it is to be found anywhere else on the surface of the earth!

"From the main-entry a number of branches are worked into the seam. These are for the most part not so high as the principal one, as they are excavated only to the thickness of the coal, and one has to walk bending very low in order to avoid hard knocks against the irregular protuberances poking their stony heads out inquisitively from the overhanging roof. In one of these cross-entries we reached a place where four miners with drills, shovels, and pickaxes were breaking out the black diamonds.

American Common Sense. "Up to the present time coal has been actually excavated from only a few places; the principal aim has been directed to determining the orientation of the seam and of the cross-sections as well as the preparations for working the rich deposits.

"Now, however, everything is in readiness for the great undertaking, and the director informed us that the Company expected to be able to get out at least 60,000 tons a year; this expectation can scarcely be considered as over-optimistic when one considers the whole enterprise, as it has been managed in a comparatively short time with genuine American practical common-sense.

Longyear City. "From the mouth of the main entry described above, a steep cable-operated railroad (*Bremsberg*) leads down over the declivity to the colony which has grown up at the foot of the mine. There are ten or a dozen wooden houses erected by the Company, making a complete little town which proudly calls itself Longyear City after the principal owner of the enterprise. It bears the distinction of being the northernmost city on the globe.

The Power Station. "A narrow-guage road for horses connects the place immediately with the landing-station on the shore of the Bay. The chief means of transporting the coal to the coast is by an aërial railway about 1500 meters long, supported by a long row of tall towers down the mountainside, and supporting on its strong cables the numerous baskets, each of which will contain several hundred-weight of coal. Both roads end at the outer point of the long mole which the Company has built out into the Bay, where there is sufficient depth of water for colliers to lie alongside. Scientifically-devised arrangements have been provided for emptying the cars as they descend from the shaft into the holds of the transport-ships, so that the lading can be accomplished in a minimum of time. The motive power for the aërial railway as well as for a less extensive railway on the mole is furnished by a great central power-house in the vicinity of the landing-stage. There, two dynamos have also been located to furnish electricity for the extensive lighting-plant in the colony and in the mine, as well as for the motors which are placed at the shaft above.

Practical Ability of Managers. "The larger part of this apparatus can be employed of course only during the summer and the fact that all this had to be finished during two seasons of work affords the very best proof of the practical ability of the men in charge. The laborers required for these operations are recruited for the most part from Northern Scandinavia, but there are among them also Russians, Englishmen, and men of other nationalities; we even found two or three of our own German race among the miners. It is therefore a very variegated group of men gathered here, and they

POWER-HOUSE, INCLINE RAILWAY, ETC., ADVENT BAY

POWER-HOUSE, INCLINE RAILWAY, ETC., ADVENT BAY

have to be kept under strict discipline. The men receive on the average from six to eight kroner a day for their wages; in the winter those among them that are especially capable, according to the statement of the Director, get under special arrangement as much as fifteen kroner. They pay a certain comparatively small fixed charge for food and lodging, and as there are few or no opportunities for spending money, the majority of them are enabled to save a good deal.

"During the two last summers about a hundred men were employed in the enterprise, perhaps a fourth of them in the mine itself. Forty or fifty spent the winter up here; it was expected that at least eighty would winter there this year.

Winter Isolation. "There are no women up here except the Director's housekeeper, but a few dwelling-houses were building, and they would be occupied another Summer. Until recently those remaining have been cut off from the rest of the world, for one must realize that the cold season of the year lasts longer than in our latitudes. About the beginning of October the coal-steamer makes its last trip, and not until the end of May are the ice-conditions so that she can make her way into the Bay again; indeed this year they were so unfavorable that the *Munroe,* the Company's little coal-steamer, on her first visit, on May 24, was obliged to anchor outside of Advent Bay, and only the engineers, the doctor, and a number of the workmen managed to make their way to land, and then reached the mine on foot. Not until June 21 was the steamer able to enter the Bay. On the average, therefore, those who winter here must spend eight months in isolation and without news from home. Yet they seem to feel quite contented, for many of them have already spent two winters here in succession, and the German boss-miner, in whose rooms we were quartered, told us that he expected to stay for a third winter.

The Doctor's Quarters. "In the evening we accepted an invitation to call on the doctor, who is stationed here at the expense of the Company. He occupies two small rooms which he has made homelike with books, furs, and tokens of his dear ones, and very tastefully arranged. We chatted on

every conceivable topic. He told us about the working-conditions and the health of the men and the hunting-trips which are occasionally made. We talked about politics and about the meetings of the Spitsbergen Conference, and many other things.

Prohibition of Liquor. "Unfortunately there was no liquor. It is rigorously proscribed throughout the whole colony, and the management of the mine are much annoyed because tourist-ships arrive in the Summer season and furnish the miners with opportunities to get alcoholic drinks, so that for days at a time all the restraints of virtuous probity are broken down. But we were well entertained with lemon-juice and good cigars, which do not have to pay any duty here and are therefore cheap."

Salvage of the Germans' Equipment. The next day, the *Munroe* was at the mole, and while it was taking on its last cargo of coal, they arranged to borrow one of its boats to cross the Bay and salvage what they could of their equipment left on the shore of Cape Diabase where they had come to grief. This was happily accomplished, and when they returned to Advent Bay they were greatly touched to see the black-white-and-red flag of Germany flying in their honor on the mainmast. They had a little time left to call on the director and the doctor who accompanied them on board the vessel, and gave them heartiest farewells. "The *Munroe* cast off from the mole and slowly sailed out toward the mouth of the Bay. Those that remained behind stood on the shore waving their caps."

7. SPITSBERGEN COMING INTO THE LIME LIGHT

Another of the exploring-expeditions visiting Spitsbergen during the Summer of 1911 sailed from Aberdeen in the ship *Pepperton*, Captain Thomson, and according to the English papers returned with a cargo of fifty tons of first-class marble and fifty tons of coal. The London *Times'* Aberdeen correspondent, said:

"The voyage to the North was accomplished without adventure, but on arrival at Spitsbergen the party encountered a

stretch of ice extending for over eighty miles. 'We had simply to trim our way through the ice, and at times we were covered and surrounded by it,' said Captain Thomson in the course of an interview. Mining-plant and all the necessary equipment for the expedition were successfully landed, however, and soon the real prospecting began. The expedition on the whole has been most successful, and the Island was found to be rich in minerals. Marble was found in large quantities and rich veins of anthracite and ordinary coal were also discovered.

Spitsbergen Marble. "The marble is of various colors, and it is claimed to be equal to the best stone from the famous Italian quarries. Claims have already been pegged out, and a party of men has been left in charge of the work until the *Pepperton* returns in the spring.

"Gold was also found in small quantities, but on that point Captain Thomson was not prepared to say very much. It is doubtful whether the precious metal will be found in paying quantities.

"So far as other mineral wealth is concerned, however, the resources of Spitsbergen are undoubted. Arrangements are being made by a wealthy company to develop the industries of the island, and when the *Pepperton* returns next year work will be commenced on an extended scale."

Later it was learned that Mansfield, one of the directors of this exploring-company, was in America, ostensibly to purchase working machinery, and that they were preparing to "exploit gold-bearing quartz on their claim."

Growing Repute of the Coal. It was evident from this and other indications that Spitsbergen was exciting ever-increasing interest on the part of adventurous speculators. The lavish expenditures of the Arctic Coal Company—necessary, indeed, if the mine was to be made a source of profit—and the growing reputation of Spitsbergen coal, as the colliers brought ample cargoes of it and distributed it among the coast-towns of Norway, made the interloping claimants more and more zealous in pushing their audacities—not so much, probably, with

the hope of rivalling the American Company, as with expectations that they might compel its managers to buy them off at exorbitant figures.

Hjorth was making some effort to organize a company and obtaining considerable sums of money by the issue and sale of stock for the use and development of the tract which he claimed within the limits of the Ayer and Longyear property. The syndicate maintained their usual force, varying from three to seven men during the entire year, and built an addition to their house, about doubling its capacity.

Anker for the first time had two men left to over-winter. A somewhat larger force, who were said to be not miners but hunters, had started a mine some fifty meters from the Green Harbor mine of Ayer and Longyear, and had driven it a short distance under ground.

Bay & Wex. Anker's company had an expedition of two boats in Spitsbergen waters for about a month during this summer in charge of the Norwegian engineer Bay and a German coal-expert named Wex (properly pronounced *Vex*).

All these companies were notified by the Green Harbor foreman that they were trespassing, but all such protests were ignored. For the first time a trespasser appeared on a part of the Advent Bay tract. This was in the person of Klaus Thue, familiarly known as Touie. This was the same old man as was mentioned by the Germans who sought shelter at Advent Bay. He had been in the habit of going up to Spitsbergen to sell postcards and other trinkets to tourists. He now filed with the Norwegian State Department his claim to Advent Point, but his only ostensible pretext was that he had lived there in a tent for several Summers, merely tolerated by the Arctic Coal Company.

Coal Deliveries. Gibson was fairly well-satisfied with the coal-deliveries during the Summer. He reported that the best loading was that accomplished on August 27, when there were 1,837 tons and ninety-seven tons of bunker-coal taken on in twenty-eight hours. In one week three ships were loaded with a total of 5,555 tons, and that was a time when the haul-

age system on the bridge to the dock was temporarily giving considerable difficulty. The total amount shipped to Norway was 24,000 tons and 2,000 tons were sold at the dock. The expiration of the Spitsbergen insurance-period on September 20 was a serious handicap, as the best weather of the year fell between September 15 and October 5. That, and the unusual ice-conditions in the early Summer, considerably reduced the tonnage shipped. Gibson thought that with the mine producing 300 tons a day a "very conservative estimate of their loading capacity, was 6,500 tons a week, or about 70,000 tons during any season, but that this might be increased with the output of the mine; he advised not to make an attempt to go beyond that the next year.

The last boat left Advent Bay on October 1, leaving a winter force of ninety persons at the main mine, and a foreman, stewardess, and five miners at Green Harbor, where Gibson had contracted with the whaling company to furnish 500 tons to be delivered during the Winter.

Discharge the Ship's Captain. On August 22, Gibson wrote to Mr. Longyear that he had felt compelled to discharge the ship's captain for causes not necessary to go into. The Captain retaliated by reporting that the ship was unseaworthy. This delayed her sailing, for they were obliged to call in the commissioners; these officials promptly pronounced the ship all right. Then the captain tried to induce the crew to desert. He was arrested and fined 300 kroner for interfering with the customs officers.

The Winter-Superintendent's Failure. Another of the former stand-bys of the Company was also giving dissatisfaction: that was the winter-superintendent. Either through careless optimism or through actual incapacity he had reported to Gibson that there were 24,000 tons of coal in the stock-pile at the mine. This proved to be an overestimate amounting to 9,000 tons, so that Gibson, who had counted on the larger amount, had made contracts which he found it exceedingly difficult to fill, and he was inclined to believe that the superintendent was incompetent to handle the Spitsbergen end of the

enterprise in an efficient way. It was too late, however, to make a change that year, and he was left in charge for one more winter. Mr. Longyear was much disappointed by the failure of these two officers of the Company to realize his expectations of them. He had conceived a strong liking for them. They had rendered good service for several years, and their failure now he attributed to the effects of the Arctic climate in which they lived so much for the last few years.

When Gibson first announced his intention of resigning, negotiations were opened with others recommended by W. L. Coulson. The Company's letter setting forth the proposition gives an interesting résumé of what had been accomplished:

The Company's Proposition as to Manager. "The proposition we have on Spitsbergen is an unusually interesting one. We control a large area of coal-bearing lands, and the development-work, which has been going on now for five or six years, convinces us that we have coal-seams of large extent showing an exceptionally high-grade bituminous coal. The seams that we have developed are all tunnel-propositions, located on the sides of the hills above tide-water. Immediate proximity to tide-water and the location and nature of the seams are all exceptionally favorable to a successful enterprise. The property may be said to be now fully equipped and developed to a point where production at the rate of 100,000 or 150,000 tons per annum is possible. This season we are beginning for the first time to make sales on a commercial basis, and our manager hopes to sell somewhere from 30,000 to 50,000 tons this summer.

The Force. "We have been employing a force of around one hundred men, and the manager has been assisted by a very competent staff,—some American and some English,—most of whom have been with us for several years. The labor is nearly entirely Norwegian, not very efficient, but a nucleus of satisfactory workmen and miners is being trained.

The Work. "Work goes on on the island the year around, but our transportation seems to be limited to three, or at most four months. The Norwegian Government is installing for us

a wireless system, so that communication will be maintained the whole year around, as well as an aid to shipping.

The Manager's Duties. "The manager will take full charge of all business in Europe, will attend to the purchase of supplies and transportation of the same and of the employees, must supervise the development of the mines and such outside construction-work as may be going on, as well as the production of coal, and the transportation and sale of it. Our head-quarters are at Tromsø, Norway, and our employees and supplies are transported to and from the island by a small steamer that we own, which hitherto has made three or four trips during the season. Hereafter, on account of the freighters carrying our coal, there should be frequent opportunity for transportation.

Superiority of Coal. "From your knowledge of the coal-business, you will understand that it is slow business introducing a new coal; but if we are correct in believing that we can lay down in Norwegian and other ports, possibly with the aid of some convenient storage-depot, notwithstanding our short shipping-season, a steam-coal superior to the best Newcastle steam-coal, at a cost not exceeding that, or possibly less, we believe that we have the elements of a large business, and one that will rapidly increase; but it will, of course, be most important that our operations should be conducted with extreme economy.

"In an enterprise of this kind it is necessary to treat the man in charge fairly and liberally, and it would be the intention of the management to do so. It is well to understand clearly that the requirements of the place are more exacting than in the average managership of coal-mining in this country. Though most of the hard work in connection with the opening of the property on the island has been done, the sales have got to be extended and supervised. The transportation-problem will always be a difficult one. If our sales increase, new mines will have to be opened and equipped. There will always be a large labor-force to handle, and the matter of equipment and supplies involves an infinite amount of intricate detail.

Climatic Conditions. "The climatic conditions at Spitsbergen are excellent. It is extremely healthy, and the temperature during the summer-months not very low. In any case, the climate is very dry, and we have been almost entirely free of sickness. The manager will probably never spend his winters on the Island. Hitherto he has had a large part of the winter to himself, but will probably hereafter have to devote this time to negotiating his sales in Norway and northern Europe, and planning his next season's work."

When Gibson expressed his readiness to remain with the Company until "he had made good and had put the business on a paying basis,"—to use his own words,—the negotiation with American applicants was terminated. Mr. Longyear, however, was aware how anxious Gibson was to get back to America. He had given Mr. Scott Turner an opportunity to look the ground over and study its possibilities; he knew his fine qualities, and that he wanted a wide field of activity; he offered him the position and it was immediately accepted: the contract was signed in November, 1911, shortly after Gibson's return to Boston. The new manager sailed for Norway, by way of England, about the middle of December.

SCOTT TURNER

X. A NEW CAPTAIN AT THE HELM

1. MEANS OF TRANSPORTATION

THE FAIRY figure of Hope, with her rosy wings, had kept hovering before the eyes of the enterprising founders of the Arctic Coal Company and they certainly seemed to have good reason to follow her lead. They had found practically limitless stores of coal, characterized by experts and by all who had tried it as "the best coal in the world." It was so situated as to be practical and comparatively easy to mine, within reach of a shore where the water was deep enough for great colliers to take on their cargoes with the minimum of trouble and expense. They had poured out money in a generous stream to provide abundant facilities; they had treated their employes fairly, and even generously; they had looked out for their material and moral welfare. But just as they had got their great works ready for large production, by which alone there was any chance for profitable exploitation, Hope flew a little farther away, still beckoning but still elusive.

THE EISJUNGFRAU OF THE NORTH. We shall see what unexpected difficulties kept rising to postpone the day of complete success. They were pitted against the Eisjungfrau of the North, who, as in the Alps, was always lurking in wait to foil the ambitions of man. Only in the Spitsbergen legends the Eisjungfrau has ten or a dozen sisters, one of whom is an old woman—the scurvy in human form—who are seen or used to be seen by trappers "illumined by the pale glow of the Northern Lights, in which the eddying snow whirls through the air," and accompanied by "the Spitsbergen dog," a mythical beast of fiercely malignant nature, which rushes over the surface of the frozen sea like the wind, and "is as fond of drink as a trapper," and when he can not get it sends howling winds to wreck ice-bound ships.

Norwegian Jealousy. But skill and science are proof against the scurvy-women and the tempestuous dogs of the North; more insidious in their evil effects were the anarchistic ferments working in the minds of the Skandinavian miners employed on Spitsbergen; and still more difficult to combat was the contemptible, jealous opposition in Norway itself to all the undertakings of the American Company. This was found as a constantly-undermining factor in the development of the enterprise.

Scott Turner went to Norway with no illusions as to the difficulties he was to encounter. He was cool and level-headed, practical and thoroughly trained—capable, if any one was, of overcoming odds.

Letter to the Stockholders. Shortly after his arrival in Norway, the Company sent a "private and confidential" circular-letter to all the stock-holders, in which it was stated that the capital-account, figuring no interest, stood at $430,-853.10. Of course, up to that time, there had been no expectation of profit. The letter said:

"All moneys have been most economically and conscientiously expended. The expense of opening and equipping a property for large production is necessarily great, but we are satisfied that is the way to make any coal-enterprise in Spitsbergen a paying venture. Any concern attempting to operate on a smaller scale, and with a less complete and therefore less economical plant, is bound to be unsuccessful. We understand that one or more projects for the mining of coal on Spitsbergen are being promoted in Norway, but from what we learn of their projects we do not believe that this competition will be at all dangerous to our interests."

It called upon all the Norwegian share-holders to assist to the best of their ability in furthering the sales of the Company's coal, and in recommending their product, and it promised that as soon as the floating debt should be liquidated and the sales should amount to 200,000 tons a year, there would be a fair return in dividends.

Up to this time the output of coal had been only such as

was produced by the work of development, and the management of the Arctic Coal Company did not consider that they had as yet done much mining. In order to put the enterprise on a commercial basis a large output was necessary, and Turner addressed himself to this feature of the business.

The Ship Problem. One of the first problems that had to be met was to increase the means of transportation. When in London he investigated the possibilities of purchasing a collier for the Company. Nine months earlier a bargain might have been picked up, but a "tremendous boom in shipping" had been started, and there was an increase of from twenty-five to thirty per cent. in prices of such boats. All the ship-yards were short of workmen, and, naturally, charters for hiring coaling-ships had also gone up.

Turner went over the specifications of fifty ships and found that those built within ten years would cost nearly as much as new ones. Moreover, none that he saw was particularly adapted for their purposes. Only three were at all suitable; they were offered—two at £21,000 and one at £19,000 sterling, with a possibility of "shading the price" five or ten per cent for cash. They were built for carrying wood, and none of them had more than four hatches, and Turner doubted if a "clam-shell" could be used for any of them.

He thought that perhaps the best way would be for the Company to get quotations on some of the Lake boats if they should prove "stiff" enough for open-sea work.

Nine days later he wrote from Tromsø that he had received a net quotation of £19,000 sterling on the steamer *Peter Benoit,* but that the Antwerp Engineering Company would build a new self-trimming collier for £19,250, with delivery the following November or December, and he thought the design, a blue-print of which he enclosed, and the price, seemed attractive. But he was very desirous of knowing as soon as possible what had transpired regarding the purchase of a Lake freighter. Though it is anticipating a little, it may be well to state here the outcome of this project.

Turner, in following up the possible purchase of three

other steamers, cabled to the Arctic Coal Company that their owners had gone up still more on their prices, and were asking £12,500 sterling for the first two, so that it seemed evident that England was not the place to secure the needed collier.

Ship Turret Bell. Mr. Longyear himself took up the matter vigorously, and after making many inquiries, seeing many lake steamers and visiting Quebec, decided to purchase the *Turret Bell,* which was rated as having a capacity of 4,000 tons.*

Turner, on learning that so big a vessel had been bought, cabled a protest; and the day before he sailed for Advent Bay he wrote, outlining the principal objections that occurred to him. He had talked the matter over with a number of persons acquainted with the situation, and they all agreed that a smaller ship would be more desirable. The chief obstacle was that none of their customers would receive that amount of coal at once, having no place to store it, and most of them never kept such a stock on hand. One coal-yard at Tromsø, probably the best equipped in northern Norway, wanted cargoes of only about 300 tons each, and outside of Narvik he did not expect to put a 4,000 ton cargo into any port, and the one at Narvik was exceptional and only for that season.

Objections to so Large a Ship. The only alternative he saw was to unload part of a cargo at one port and then proceed to the next; but that, he remarked, would involve weighing the coal as it was unloaded,—"a slow and expensive operation," which they for the most part avoided by "getting the majority of their customers to accept certificates of weight issued at Advent Bay." He pointed out also that it was impossible to unload from only one hold, as it put a too severe strain on the ship. In Norway the coal was taken away in wheelbarrows, and he estimated that it would require more than a fortnight to unload a 4,000-ton ship.

Moreover he doubted if a 4,000-ton ship could get over the

*As is customary in the purchase of ships, especially after any accident, she was to be renamed. She henceforth appears under the Indian appellation—*Kwasind.* See Chapter XII.

water-main at the bottom of the river at Trondhjem, or reach the yards at that port even at high water, and he thought it probable that such a craft would be too wide to go through the draw-bridge. All the other docks were built for small vessels, and he suggested that the *Turret Bell* would extend out so far as to impede harbor traffic. The same difficulty confronted them at the Advent Bay dock, because her bow and stern would project into shallow water. He called attention to the fact that the *Locksley* often got aground there. But he realized that if the Company established its own coal-yards in Norway it would be just the right sort of boat, and of course, being a resourceful man, he said he had no doubt that she could be used as soon as she should arrive.

Advantages. Mr. Longyear replied that the *Turret Bell* would cost about half what the English builders were asking, and even if the repairs and improvements to be effected on her should amount to double what the marine architect estimated they would be, still the price paid would be far below what was demanded for 2000- or 2500-ton ships. He also thought it would enable them to try out the experiment of using a large ship, for it seemed probable with the many economies effective in carrying a large tonnage as compared with those possible in a small vessel, that the problem of getting a profit from the mine would be solved, and so he was desirous of giving the matter a thorough trial. He informed Turner that small loading-hatches were being constructed about seven feet below the coam-lugs of the main-hatches, and those could be used for starting the lading. The vessel had a double bottom which could be filled with water to sink her several feet, and then the water could be pumped out as the load went in. He also expected that she would be run as a "tramp" for at least two-thirds of the year, and in case that were done her large size would "add tremendously to her earning-capacity." Mr. Longyear also advised employing a man "who was fully acquainted with the shipping-business" to attend to handling all the ships. That would relieve the general manager from a host of petty details.

High Prices for Launches. Turner had also met with unexpected difficulty in finding a suitable power-launch either in London, Southampton, or Kristiania. Not one of satisfactory type was found for sale. Inquiries were made from the Boston office of the Company, and finally a small fishing-tug, the *Lenore,* was found and purchased at Halifax, Nova Scotia. As the probably least expensive and most expeditious way of getting her to Quebec, a crew was employed to run her there by her own power, and after various more or less expensive adventures and delays she arrived there and was delivered to the captain of the *Kwasind.* As related elsewhere, the *Kwasind* carried the *Lenore* to Spitsbergen. He found also that all cargo-boat charters had gone up fifty per cent. over the previous year's prices and "tonnage" was very scarce at that, so that he was proposing to sign for several boats before the end of February.

The next month, March 17, he wrote that he had chartered for three months' service an English ship of 2640 tons, for which he was obliged to pay £3120 sterling, or about $15,000 for rent alone, and he thought such a sum would go far "in paying the interest on a pretty good investment" for a ship of their own.

Advance-Coal-Sales. Besides the English steamer, he later hired the *Eleonora Mail,* the *Alma,* the *Lyng,* and the *Locksley,* for all of which he had to pay the current abnormal prices. But on the other hand he wrote that he had sold out the limit of the mine's coal-production for the year at excellent prices, having since his arrival contracted for none at less than nineteen shillings a ton. Fourteen hundred tons of this were to be consigned to the Norwegian Navy Department c.i.f. Bergen, at nineteen shillings, sixpence—a very important sale for advertising-purposes, since the Government made their own tests. They had never bought a cargo before. He thought that if they had their own collier she could be kept on transit until the 10th or 15th of October and increase their shipments during those last twenty or twenty-five days by four or five thousand tons. The insurance-limit would be past, but

the risks seemed small, and he recommended that the Company should carry its own insurance on all their fleet.

Hunting-Leases Slack. It had been suggested that the *Munroe* might be leased to hunting-parties during the summer when her services were not particularly needed as a carrier between Norway and Spitsbergen. Turner made inquiries and found that demand for that sort of accommodation was slack that year. He placed advertisements in "Field" and in "Sporting and Dramatic News" of London without results, and entered into an extensive correspondence in his attempt to rent the *Munroe* for summer-hunting; and he proposed, unless some advantageous offer reached him, to make use of her "to the best advantage" in their own trade.

The Spitsbergen Islodser. He wrote that their case against Bang, the Spitsbergen pilot, or *Lods,* had gone against them in the Tromsø Court, but he was going to appeal it, and fight it to the bitter end. The Spitsbergen *Lodser* had formed a union, but after what in his letter he called "a great deal of bickering" (by which he perhaps meant dickering, though there the terms might well be synonymous), he signed a contract with them for another year; but it was his impression that it would be best after that to cut loose from them altogether. Judging from the experience with the *Folsjø,* when the pilot took her several hundred miles too far north, they were not very trustworthy guides.

2. DEALINGS WITH THE GOVERNMENT

A Mail-Carrying Scheme. Another move on the part of the Norwegian Government in the line of getting their tentacles on Spitsbergen was a proposal on the part of a newly-formed Company to get the contract for carrying the mail to Advent Bay and Green Harbor. Turner thought this a wholly bad thing. This local company was planning a regular route to Green Harbor and probably to Advent Bay. The manager applied to Turner for bunker-coal, and he was pleased at being able to state that their product was sold for a year; a motor-boat would have to be used. When a captain in the Norwe-

gian Navy called on Turner to ask him if it could be arranged for the Arctic Coal Company to make a contract with this new company for freight on its fortnightly steamer for Spitsbergen, he discouraged the idea, and thought that nothing more would be heard from it. "In case they decide to run without our permission," wrote Turner, "I think we can soon put them out of business."

His first real move in that direction was outlined in a letter written from Tromsø a few days later. He said:

A Surprise for the Postmaster. "I have another little surprise for this venture in the form of printed orders to the postmaster here to deliver mail to our office at Tromsø, if addressed to employees at Advent Bay or Green Harbor. Each man will be asked to sign one of these orders when he signs his labor-contract, and then we will spring them at the Post-office officials after the *Munroe* sails. In this way we can cut the amount of mail carried under contract to such an extent that it may prove unprofitable to the Government. Of course the establishment of a regular mail-route and a Norwegian post-office on Spitsbergen is a strong move for the Norwegian Government. It may violate some of the precepts of neutrality on *terra nullius,* and I presume Mr. Wilson will have looked this point up."

It was easy to invent petty annoyances for the manager. He found that he was in the hands of a condensed-milk trust, which was constantly advancing prices. This was, however, not a peculiarly Norwegian institution, for such things were known to exist in the United States; but he thought that the Boston Office might succeed in getting better prices on both sweetened and unsweetened milk. They used at the mine about three hundred cases a year, each case holding two twenty-five pound cans. Notice was served on him that the Spitsbergen doctor's salary had been "garnisheed" for the support of an illegitimate child, and as cases of that kind were all the time coming up against the Company he desired to have the State Department at Washington decide whether such garnishees in Norway were binding.

Care of the Sick. News came by wireless that two hunters had sought refuge at the camp, both ill with scurvy, and that one had died. As the big furriers in Norway who employ such hunters always give them a contract entailing no responsibility, they refused, as in years before, to reimburse the Company for the care and keep of the sick men, and it was useless to sue them. Turner had sent a petition to the Norwegian Government to recover these large expenses, which seemed unavoidable unless the men were refused shelter and left to perish; but here again nothing was likely to result. Moreover the Chief of Police in Tromsø had been bothering him in regard to another case arising from their having kept back part of a charity-subscription, to settle about a half of a bill for store and board bill contracted at Advent Bay by a wounded man they had taken in, nursed, fed, and transported back to Norway. Still another case was likely to result in a law-suit. It was a serious problem how properly to avoid these impositions, which seemed to recur every year. In previous years Gibson had been overwhelmed with applications to transport passengers to Spitsbergen: Turner also found this was still a live issue, and he wrote that he had been asked to carry a Norwegian Navy-captain, who told him that he was going for the Government to look up locations for light-houses, particularly on Ice Fjord. Turner says that this was "another step in the usual direction by the Norwegian Government," but he thought it just as well to show courtesy to this man, and agreed to take him.* Another request came to extend courtesies to Professor Wilhelm Kükenthal of the University of Breslau, who was desirous of securing specimens of embryonic whales. That particular service required getting the favorable cooperation of the Green Harbor Whaling Station as well as procuring suitable kegs and a considerable supply of formalin.

An Abortive Telephone Scheme. Then the Director

*As the season of navigation about Spitsbergen is one of continuous daylight, the alleged purpose of this office to select sites for light-houses struck the Americans as having a "fishy" look. It may have been only "graft."

of the Norwegian Telegraph System approached Turner with a project to extend a telephone-line from Green Harbor to the Company's office at Advent Bay. The System agreed to bear the whole cost, which was estimated at 60,000 kroner, but an immediate decision as to the acceptance of the scheme was desired so that an appropriation might be obtained from the Storthing. Turner thought that this telephone-line meant to forestall the erection of a wireless-station at the mine, the Government realizing that if that were done all messages sent from Spitsbergen would be audible there.

Negotiations led to a contract between the Arctic Coal Company, Ayer and Longyear, and the Norwegian Telegraph System for telephone communication between the Norwegian radio-station at Green Harbor and Advent Bay; but the Norwegians did not build the line and nothing came of it.

3. PLANS FOR DISPOSING OF THE COAL

Another illustration of the way the Norwegians tried to block the enterprise of the American Company was found in the difficulties met in their attempt to form an accessory company to deal with the Spitsbergen coal. Turner had telegraphed to Mangham to learn the amount of the winter's production; but no reply had arrived. He conjectured that it might amount to 10,000 tons. Since they had already contracted to dispose of 30,000 tons without reckoning bunker-coal, he considered it inadvisable to contract for any more deliveries. The price of coal since the last autumn's contracts had been signed had advanced from five to seven shillings. Moreover, a threatened coal-strike in England was likely greatly to increase prices. Had the wireless been in operation at that time this might have been wired to the profit of the Company. He suggested contracting the shipment of the coal on a flat-rate per ton "providing this could be done with some large and responsible shipping-company in Norway."

Another scheme which he thought would be ideal, though he saw that it would be a difficult matter to arrange, was to make a contract covering a period of years for the sale of all

or of a large portion of their coal f.o.b. at their dock at Spitsbergen. That, he said, "would do away entirely with the shipping-end, which is undoubtedly an expensive one for us and a function which could be performed much cheaper by an organized shipping-company, and at the same time dispose of the legality of our doing business in Norway."

A Branch Coal-Company Proposed. Still another scheme outlined the formation of a branch-company which under the control of Turner should procure coal-handling facilities in Norway with a dock and yard at or near Tromsø and another at or near Trondhjem. Such a company, he thought, might be organized under Norwegian laws with some of their own stock-holders in it, and sell the Advent Valley Coal at the market-price less a percentage equal to a commission for selling. He consulted with a local attorney, who drew up three alternative projects. One was to secure Governmental permission for the Company to acquire such docks and storage-plant as they needed, provided a Norwegian citizen had such an establishment to offer. This involved the desirability of selling such stock from their storage-coal; but the Norwegian law provided that no stock-company could get a license to sell unless one member at least possessed certain qualifications as to book-keeping, and had also been living in the country uninterruptedly for a year. The attorney rendered the opinion that the Company in its present status would not be able to get a license to sell coal. This plan being held in abeyance, two alternative propositions were suggested:

The first was that of starting a separate company for the same purpose; if such a company were to be established in Norway, and directed by Norwegian citizens, there would be no difficulty in acquiring real-estate and none in securing the license to sell. If, however, any foreigner were a member of the direction, royal permission would be needed either to buy real-estate or to lease it for a longer period than ten years, but if one Norwegian living in the country were on the direction the license to sell might be easily obtained.

The other alternative suggested by the attorney was that

the Company should agree with some Norwegian firm, located in such place or places as the Company might select, to act as their agent or commissioner, and be paid a certain percentage on the sales. The commissioner would have to secure a license to sell, but that would free the Company from the necessity of acquiring a license or permission of any kind. On any of these three bases the sale of the coal would be subject to Norwegian taxes. Turner, in his reply, eliminated the third plan as impracticable, and asked the attorney to elaborate a little further the other two schemes, and to go further into the question of taxation.

Taxes in Norway. The Norwegian tax-system was both complicated and onerous. There was first a commercial tax of twenty-five kroner a year. In the rural districts there was a ground tax, and in the cities a property tax amounting to about the same figure, which, however, was not a serious consideration. The income tax varied in different places. In Tromsø it was eleven per cent. on income and two-tenths per cent. on property. In addition to that was the State tax fixed every year and levied according to a graduated scale, two per cent. on net incomes up to 4000 kroner, three per cent. on incomes from 4000 to 7000 kroner, four per cent. up to 10,000 kroner, and five per cent. on greater incomes than that. Moreover, a new law becoming operative the following year would formulate special regulations "in the event of production taking place in a community other than where goods are sold." In that case seven-tenths of the income would be taxed where production occurred, and, of course, Spitsbergen being a Happy Land where there was no taxation, this might work favorably for the Arctic Coal Company. "However," said the attorney, "this regulation was made for producers in this country, and it was doubtful if it would apply to a foreign company." If it were, the Company would be obliged to produce its accounts before the taxation authorities.

A Joint Stock Company. Turner requested the attorney to proceed to draw up a tentative constitution and by-laws for a joint stock company, based on a capitalization of 300,000

kroner for the "purchase and turn-over of Spitsbergen coal and such business as is connected therewith, among others acquiring necessary ground and establishments in Norway for storage and turn-over of coal, and the general operation of the company," including the right to buy and sell coal from places other than Spitsbergen. The company directors were to be five in number, three Norwegian citizens living in Norway, and the other two, permissibly, American citizens.

Mr. Longyear's Simpler Plan. Mr. Longyear thought that all the attorney's suggestions seemed "very cumbersome and awkward," and proposed that they should arrange with some reliable Norwegian citizen to purchase such of their product as they could furnish each year, he to pay them for the coal as fast as it was sold, less whatever amount it might be agreed upon as his commission, or rather as his profit. "The Norwegian," he said, "who would thus buy our coal could own the coal-dock, and we could finance its purchase, improvement, etc., taking a mortgage back for the full amount. Should we be able to find a thoroughly reliable man to do this, and one familiar with the coal-business, it would work very satisfactorily, and avoid all the legal quibbles and circumlocution necessary in forming a corporation." He directed Turner to have the legal phases of this scheme looked up and reported upon the following autumn. He suggested having at least two such stations in Norway and possibly another at Bergen.

A Proposed New Dock at Trondhjem. He suggested dredging a slip in the mud-banks east of the river at Trondhjem, so as to build a new dock there at a less cost than it could be constructed elsewhere, and he suggested that some Norwegian subject might get a valuable concession for its use for a long term of years in consideration of their furnishing the capital with which to build it. "Such an improvement," he wrote, "would be very desirable for the city of Trondhjem. It would also make an excellent and easily accessible coaling-station. It would be readily accessible for both rail and ships, and it could be dredged to a depth which would admit any of

the ships likely to come in for coal or to deliver cargoes from Spitsbergen."

As regarded the approaches to the dock at Advent Bay, he asked if it would not be possible to dredge the mud-banks on each side of the dock and thus remove the obstruction, so that the *Turret Bell* (*Kwasind*), which was to be furnished with "clam-shells," or any other large ship, might lie alongside.

4. THE ACQUISITION OF A HOUSE

The difficulties thrown in the way of foreign commercial activity in Norway precluded the Arctic Coal Company from carrying out the formation of the subsidiary organization. But another venture proposed by Turner and approved by the Company for the acquisition of staff-quarters at Tromsø resulted in the purchase of a suitable house. The housing-situation in Tromsø was particularly bad; the hotel there Mr. Longyear declared to be one of the worst he had ever encountered, and it was felt that if they could buy or build a convenient edifice with offices and rooms for the assistants it would result in an ultimate saving of expense. In any case, there would be an income tax on the house amounting to ten per cent. of its total returns, but figured on purchase-price would not be very onerous. It was suggested that if the Government made any objection to American owership, the property could be held in Saether's name.

A Broken Agreement. Accordingly Turner, who had previously made a canvass of the entire town without finding any vacant houses for rent and but three or four for sale, came to terms with the owner of the only place available. It was situated a little way out in the country. He took it on a three years' lease with a six months' sale-clause, and then waited two months for the house to be vacated. The owner, whom he described as "an irresponsible little dentist," then repudiated the lease, claiming that his lawyer, "who signed for him, did so without his authority." There was good cause for suing him for damages but no satisfaction would have been obtained.

This put Turner in an awkward position: a number of the

newly-engaged engineers and other American employees of the Company were coming with their families, and quarters had to be secured for them. There would be no accommodations on the island until new houses there were completed, and the conditions at the Tromsø hotel were so forlorn that he knew the ladies who were to stay there for the Winter would be discontented. He caused plans to be drawn for a house that could be built for eight or nine thousand kroner; these were submitted to the local building-inspector, a bumptious person, who swore that they could not erect such a poorly-constructed house in Tromsø, and that only "good, solid buildings made of three-inch deals of logs, were permitted." Notice came that city water and electric current were so scarce that neither would be sold to them, and that they would have to construct their own sewers under the direction of the inspector.

At just that critical moment—when they had decided that the cost of the house on those conditions was altogether too high—their attention was called to a house about fifteen minutes' walk fro their office which, with six thousand square meters of land might be bought for 12,500 kroner. The owner had moved to Trondhjem, and was desirous of selling. Turner had it examined by an experienced builder, who said that it would cost 14,500 kroner to duplicate it, and that it was in fair condition—a good bargain. Turner cabled to the Boston Office and obtained authority to buy it in Saether's name, pending the granting by the Norwegian Government of permission of ownership to the Arctic Coal Company. So that matter was satisfactorily settled.

5. TAXATION AND OTHER IMPOSITIONS

Another bothersome matter came up when the chief of the Tromsø Taxation Commission called Turner's attention "to the fact that the Company incorrectly had been passed over by the tax-assessors for 1912." He wished the Company to understand that all the employees that lived for even a part of the winter in Tromsø would be subject to the income tax. The Commissioner had for some time been gestating this project

in his teeming brain, and it now transpired that he was going to enforce the imposition.

Turner found on inquiry that it made no difference whether these employees lived in a house leased or owned; even if they lived at the hotel they would probably not be exempted, nor did the fact that the salaries were paid in America make any difference. As the tax amounted to ten or eleven per cent. of the gross wages or salaries of the employees, it figured a serious loss to the victims. Turner suggested nominal reduction in the wages paid, "the difference to be made up in the form of a 'present' at intervals"; but was informed that this evasion would not be tolerated.

The Attorney's Protest. He put the matter into the hands of the Company's local attorney, who drew up a protest in behalf of the Company against the proceedings of the Tax Commissioner, arguing that the Company's Office in Tromsø was not a branch of the Boston Corporation, but simply used the convenience of that port for the purchase and shipment of such articles as it needed for its operation in Spitsbergen, where all its production occurred, hired there its laborers, conducted its correspondence, chartered its necessary steamboats, and directed their operations; that the manager of the Company spent his winters in America, and was in Tromsø only a small part of the year. All its other operations were either in Boston or in Spitsbergen. He pointed out that "by a Supreme Court decision it was settled that a share-holding concern, whose activity is connected with a labor-enterprise, is to be taxed for all its profits in the country where the enterprise is situated, and not in the district or municipality where the Company has offices and where the management has its seat. He argued therefore that, since the Arctic Coal Company had its works on Spitsbergen, it was not obligated to pay taxes to any Norwegian municipality on its property or income.

An Attack on the Munroe. The authorities were preparing a still more drastic attack on the business of the Company. This was directed to the clearance of the *Munroe*. When on April 21, after six or seven weeks of exasperating

delays, she was pulled out of the water for the annual inspection, it was discovered that during her encounters with the ice the season before, not only had her propeller-blade been broken, but the main-shaft was so badly bent that any navigation in that condition would be very dangerous. It was impossible to procure the piece of shafting necessary for proper repairs in time for the first sailing; either the bent one would have to be patched, or it would be necessary to weld two shorter pieces together and turn them down in a lathe. Turner wired to seven firms in England and on the Continent and could get no offers of delivery in less than six weeks.

Norwegian Sea-Control. Then came notification from the Government that the ship would be required to sail under Norwegian sea-control. Turner learned that efforts would be made to prevent her from carrying her usual complement of passengers and men. He wrote to the Company that he was trying to forestall any complaints that might be made, so that she should not be held up at the last moment. He had ordered another life-boat, rented two more for the first trip, and obtained ninety new life-preservers which had been passed upon by the Sea-court. Moreover, he was going to get inspection-certificates from the proper officials while she was on the slip.

A Conspiracy. A telegram from the Maritim or Sea Control came announcing that "transportation of laborerers on the steamer *Munroe* to and from Spitsbergen must be considered as passenger-trade," and demanding an examination of the American passenger-certificate. At the same time, as a part of the conspiracy, for it must be considered a genuine conspiracy staged to cripple the Arctic Coal Company, the Veritas, or Norwegian Government Insurance Department, telegraphed that if this examination did not take place immediately the *Munroe's* class would be cancelled.

When Turner consulted with Minister Swenson at Kristiania he got a telegram from the Legation that the United States could not issue a passenger-certificate to the *Munroe*. Of course the Norwegian authorities were perfectly well aware of that. Knowing also that the propeller-shaft was not at

Tromsø, but was at a machine-shop at Kristiania, and that Turner had not as yet bought a needed anchor-chain but was having a second-hand one at Trondhjem under consideration, they nevertheless demanded immediate inspection of these two articles of equipment at Tromsø.

Arbitrary Rulings. Now the *Munroe,* on which about 85,000 kroner had been spent for repairs and equipment since her purchase in 1906, was used in the light Spitsbergen traffic, and had been examined and accepted in 1910 by the chief Veritas-inspector. She had been for several years navigated under a consular agent's certificate, such as were issued to United States citizens when they were purchasers of foreign vessels in foreign ports, and by a special clause of the United States consular regulation she was "as much entitled to protection by the United States as any other property of a citizen of the United States, and was accordingly guaranteed the right to fly the American flag as an indication of lawful ownership and right of due protection."

Turner knew perfectly well that the Norwegian Government had no such discretion (or indiscretion!) as they claimed, yet he wanted and the Company wanted to comply with the reasonable requirements of Norwegian navigation-laws, in as far as they related to the condition and safety of the *Munroe.*

The Facts of the Case. Accordingly he put the full facts of the case before the Company's Norwegian attorney and, among other things, related how the discharged master had complained to the Stiftamtmand or Governor of the Tromsø District that the steamer was unseaworthy, and two men, both of Tromsø, had been appointed to inspect the vessel and had given her a clean bill. He also submitted in detail the vexatious letters and telegrams which had been sent by the Navigation Bureau (*Sjøfartskontoret*) of Norway, evidently aimed to prevent the *Munroe* from sailing to Spitsbergen. He informed the Company's attorney, Herre Holmboe, that it was of the greatest importance that no interference should delay the departure of the *Munroe,* since the navigation season was short, they had purchased supplies of great value for de-

livery on board the vessel by May 25, had hired more than one hundred laborers to report on board on that day, and also had a large staff coming to Tromsø to sail by the first clearance.

Appeal to Washington. Copies of all the attestations and documents and of the letter to the Tromsø attorney were forwarded to Boston and to Washington. Mr. Wilson immediately brought the matter to the attention of the Honorable P. C. Knox, Secretary of State, showing how disastrously the business of the Company would be affected if the objections of the Norwegian authorities were made final, and especially if it were decided that laborers were ordinary passengers.

"In this unexpected and perplexing situation," he wrote, "the Company respectfully states that it is now and always has been careful and solicitous to obey the laws of Norway and all lawful regulations relating to its business as far as they are applicable to its affairs, as is shown by its proceedings and dealings in Trondhjem and Tromsø during the past five or six years."

He therefore asked the good offices of the State Department to procure permission from the Norwegian Government that, pending "more particular inquiry as to what facts and considerations the new requirements of the Sea-control at Tromsø had in mind, the *Munroe* might proceed to Spitsbergen with her cargo of necessary supplies and laborers on the day fixed, and thus avoid irreparable injury to the season's business, which requires the use of every day during the few months of open navigation"; and he suggested or requested that the American Minister at Kristiania should be instructed by cable to communicate with the Norwegian Government and with the Company's agent at Tromsø, so that the steamer might sail on Saturday, May 25.

The Authorities Yield. This request the Secretary of State granted, with the result that Mr. Swenson telegraphed Turner that the Norwegian Bureau of Navigation would issue a provisional passenger-certificate in time for the *Munroe* to sail on the day fixed. Swenson also cabled the Department to the same effect. The response came so promptly that Mr.

Wilson declared that the Department was disposed to think that they had been more scared than hurt by the Tromsø authorities, and that there was really not much occasion to send the cabled request. The certificate, however, through the dilatory tactics of the Maritime Bureau, did not arrive on time, as was promised, and Turner, after waiting until midnight of May 25, sailed without it.

XI. DEVELOPMENTS AT THE MINE

1. DISCOURAGING PHASES

THE *MUNROE,* thoroughly repaired and strengthened, freshly painted, and improved by the construction of six new cabins and a chart-room, was got into the water on Thursday, May 23, and, in a record-breaking passage of three days and two hours from Tromsø, tied up on the morning of the 29th against a solid mass of ice, twenty miles away from the dock at Advent Bay. She had on board one hundred and fifty laborers besides several new members of the staff who had joined Turner a few hours before she sailed. There was a large cargo, including the camp-supplies. Sledges drawn by horses were sent out to transport the luggage and bedding of the miners; but more than that could not be done because the surface of the ice was so rough.

A BACKWARD SPRING. Conditions on the island were discouraging. The winter had been colder and stormier than usual. The spring was abnormally backward: snow still lay deep and more was falling. The ground was frozen hard. No cement or lumber had been left over, and all construction-work was at a stand-still. A too small supply of dynamite had been provided, and by March the stock was exhausted. A fire at the mouth of the mine had destroyed all the buildings grouped there and delayed the work eleven days besides causing a loss of considerable coal. The rope-tramway, which had been run after the leather facing of the wheels was worn out, was unsafe and idle. The two Norwegians, who had been left at the camp for the Winter in charge of the machinery, had proved to be incompetent, had stolen a number of tools and neglected their work, so that many important pieces of apparatus were either useless or troublesome.

Trouble in the Mine. In the mine a steep local dip in the face of the wall toward the south made such a grade that the men rebelled against pushing the heavy tram-cars up through the long tunnel. Between the coal-seam and the true roof of the mine, coincident with this "roll," heavy slabs of loose rock, forming a false roof from eighteen inches to three and a half feet in thickness, were encountered, and caused much extra work as they fell with the coal and had to be removed by hand. The thinning of the coal-seam and consequent diminution in the height of the tunnel made it almost impossible for the new cars to enter. Not a yard of development-work had been done, no new headings were run and no new coal had been opened.

Incompetent Labor. The labor-situation was distressing. Fifty-five men had been employed in the mine one hundred and seventy-five working days during the Winter, but the average production of each was less than two tons of coal a day. The depressing influences of the long Arctic night caused many of them to go "stale"; others who would have been more ambitious were discouraged by the exasperating difficulties which constantly confronted them; some stayed away from work on account of bad weather or trifling illness. Whatever the reason, there was no doubt as to the low efficiency of the winter's gang.

Low Production. There had been no open violence among these men; but as the time for the arrival of the *Munroe* drew near they became restless and "out-of-hand." Not a wheel had turned for nearly a week, and less than a thousand tons of coal had been got out during a month. The advance sales had been based on the expectation that Mangham would produce a little more than 30,000 tons; he had reported by wireless that the winter's work would amount to 22,000 tons, but that was an exaggeration: besides the loss caused by the fire, the break-down of the rope-way had cost nearly a thousand tons, and the indifferent attendance of the miners was responsible for a deficiency of at least 4500 tons more.

Turner, facing the facts, reckoned that if by extraordinary energy 10,000 tons should be mined during the Summer, still

the Company would be unable to fulfil the contracts, and that it would be probably necessary to fall back on the strike-clause to protect them in case their customers should sue them for the failure to supply the whole amount agreed upon.

Turner took hold with energy and common-sense to bring order out of chaos. His promptness of decision and action remind one of Julius Caesar's dealings with the Gauls and Germans. He got the over-wintering crew on board the *Munroe* as promptly as possible and sent her back to Norway, with orders to stop at Vatnfjord and take on a lot of lumber, steel, and other building-material which had been bought at a very low price from an abandoned iron-mine. Gilson went down with her to secure additional laborers.

Shiftless Shifts. Those that came up with Turner and were landed at Advent Bay were for the most part "green" hands who had to be taught the simplest rudiments of coal-mining and coal-getting. Many of them were afraid to go into the cold depths of the mountain, and if they did were ready to quit the job in a day or two. They were an ignorant and shiftless crew, but one thing they learned easily:—this was to organize against their employers; they agreed among themselves that none of them should get out more than five cars, equivalent to a little more than two and a quarter tons each shift. There seemed to be no way of combating that conspiracy which was apparently become a traditionary custom on Spitsbergen. Turner realized that if he should venture, on no matter how justifiable a cause, to discharge any ringleader, the whole crew would walk out. That had happened twice the summer before, and each time a fortnight was lost in getting a new crew.

A New Tram-Rope and Sheaves. He found that sixteen working-places were available for two men each in the coal-face, and that kept thirty-two men busy. Others were set to cleaning up the mine and bringing it into working-order. In three weeks more than one hundred and eighty yards of new face were developed, and the arrears of the "ripping" and other rock-work were made good. Mangham had informed the

Tromsø office by wireless of the breakdown in the rope-tram, and Turner, rightly suspecting that it needed thorough overhauling, arranged with Bleichert, the original builder, to send up an expert mechanic to remedy the difficulties. An entirely new set of sheaves and brake-wheels was put in place at the upper terminal. One piece, weighting nearly four tons, had to be scrapped because of the reckless misuse of the apparatus. The automatic braking-device at the upper terminal was repaired and connected properly for the first time, and a suitable housing was provided for it. The foundations of several of the towers had settled and these were brought into line. Many of the buckets were dilapidated: they were repaired, and thirteen new ones were added. The terminal point of the lower station was rebuilt and a weighing machine was located.

The cars running in the mine were cut down, and half-inch iron sleepers were laid in place of the three-inch wooden ones. Tents were put up to feed the men in temporarily, as the dining-room seated only a hundred. A gang was dispatched to the English camp, and in seven hours dismantled one of the abandoned bunk-houses there, moved it across the ice and rebuilt it, providing sleeping-quarters for fifty men; but sixteen men were obliged, by lack of room, to sleep in the stable.

Mr. Longyear contributes the following account of the Advent Bay radio-station:

The Company's Radio-Telegraph-Station. "Among a multitude of other things to be done was the erection of a private radio-telegraph station. Gibson had purchased the outfit late in 1911, and Turner found the unopened crates on his arrival at Advent Bay. The plant had been previously used on one of the Norwegian steamers, and was of the German-made Telefunken variety. Carpenters were at work on the masts and building when the strike came, and after that there was no one available, for the rest of the summer, except a Danish foreman. The whole matter was turned over to him and he, working alone, and with no assistance other than the instructions that were found in one of the cases, erected the plant and announced that it was ready for use in August.

Turner then asked the accountant, Bryan, who, years before, had been a telegraph operator in the Western States, to run this plant. Bryan found that wireless messages were sent in Continental Morse which is different from American Morse. Bryan studied the Continental Morse for two days, and then he and Turner went to the station and got in touch with Green Harbor. With a little practice he became a very skilful operator.

"Director of Telegraphs, Heftye, in Christiania, had been much opposed to the erection of a wireless station at Advent Bay, and had offered to build a telephone line from the Norwegian Government Station at Green Harbor to Advent Bay. As this would have given the Norwegian Government control over a strip of American-owned land thirty meters wide and about thirty miles long, the Americans had preferred building their own radio-station. The first message Turner sent from Advent Bay was addressed to Director Heftye, and was to the effect that the Director would doubtless be pleased to learn of the opening of communication, and Turner presented his compliments to the Director. Turner says: 'He was not good sport enough to reply to my message.'

"The Government's next step in obstruction was to state that none but Government-licensed employees would be allowed to operate the Advent Bay plant, because outsiders would be too slow and unskilful and would cause unnecessary delay at Green Harbor. Bryan met this by practicing for a few days until he regained his western railroad 'touch,' with the result that the official operators at Green Harbor soon had to break in and ask him to 'send slower.' During the first few weeks the Green Harbor operators would try to 'smother' Bryan by sending messages as fast as possible, but, Turner says, 'I never knew him to miss a word.' This is quite remarkable when you consider that the sending was in Continental Morse, largely in Norwegian, with a multitude of Norwegian abbreviations."

A Mishap Remedied. Once in the course of the Winter an annoying accident happened to the wireless-apparatus and threatened to put it out of commission. A cable which

held the rack of wires at top of the mast broke and the "antennae" fell to the ground. The winter superintendent thought that it would be necessary to send to the Norwegian station at Green Harbor to get an expert to repair it. Such an excursion, which always employed at least two men, would have gladly been undertaken by volunteers, for the reason that there was a possibility, on their arrival at their destination, of "warming the cockles of their hearts" with something stronger than water.

But Bryan saw no reason for securing outside help. He went out and saw what could be done. He attached a line to the rack, threw it around the outside of the guy-wires which were attached to the upper end of the mast, and with only one man to assist him, pulled the antennae to the top of the guys. When the line was secured, he tried to communicate with Green Harbor and found that the radio-telegraph was in as perfect working-order as before the accident happened. Yankee ingenuity in this case, as in many others, proved to be a valuable asset.

A Drunken Crew. When the *Munroe* got back from Tromsø, after an absence of nearly a fortnight, the ice-blockade was as rigorous as ever. Several days were wasted in "bucking" the solid sheet which stretched out fifteen miles from Advent Bay. Then, as it was hopeless to get any nearer, the heavy cargo was laboriously hauled over the ice by horses to Bear Valley, whence it was transported by land to the camp. One hundred and twelve additional miners had been secured in Norway, and were disembarked. Unfortunately Gilson had followed the old custom prevailing in Norway of giving the men as they signed their agreement a *forskud,* or advance on their future earnings. Eighteen of them spent this money in getting drunk.

When they boarded the vessel they helped themselves tc blankets and bedding. On their arrival at Longyear City they got their outfits at the Company's store on credit. Then they decided that it was easier to lie and sleep in their bunks than to exert their energies in working. Two days were wasted in

trying to settle this difficulty. Eighteen or twenty of the chief offenders were got on board the *Munroe,* and Turner, who had to go down to Tromsø on business, stopped at Green Harbor and sent a wireless despatch to the Company's attorney, telling what had happened. From Skjervø, five hours from Tromsø, he telegraphed the names of the deserters and the various amounts that they owed to the Company. When the *Munroe* arrived at Tromsø, the attorney, Saether, and a detachment of police were on the wharf ready for emergencies. By the terms of the contracts made with the men and signed by them, whatever debts they incurred to the Company for money or merchandise advanced might be secured by withholding their luggage and their "attests" until such indebtednesses were cancelled.

An Incipient Riot. Saether, under police-protection, deposited the "attests" with the Chief of Police. Just as the *Munroe* was on the point of leaving for her third trip to the North, the men whose luggage was in pawn tried to rush on board and seize what they could. They were prevented and no harm was done. The luggage was then stored in the town. Matters might have been more serious had the Board of Navigation succeeded in their attempt to tie the vessel up by an injunction, on the ground that the Captain's papers were out-of-date and that, as she was now a full-fledged passenger-steamship, another mate was necessary. Turner, realizing that the vessel must sail on time, foiled the plot of the authorities by booking the captain as mate and the mate as captain, and entering a protest with the Department at Kristiania. He felt that unless an example was made of these lawless and unfaithful laborers, who in this case had not been discharged but of their own free will had quitted work, he might as well advertise that he was running a tourist-ship for the benefit of disgruntled miners, besides giving them a month's vacation at the Company's expense. He wanted to be fair and just; he was simply carrying out a signed agreement. But the case was complicated: several of these miners were Swedes, and they complained to their Consul, who not only protested against the

action of the Company, but also wired to Stockholm and threatened to make it an international imbroglio.

Scarcity of Labor. It was extremely difficult to secure miners in Norway. Trained or skilled men were entirely lacking. There was a great demand for labor all over Norway, and wages were high. Many of those that were willing to go up to Spitsbergen on such an emergency-engagement were the riff-raff of the labor world, men who, in many cases, had been blacklisted everywhere else. As Turner explained in his annual report, "The labor is generally poor and inefficient. Socialism is practically universal among the workmen, and the absence of any law or government on the island tends to make the laborers difficult to handle, as they are keenly aware of this lack of judicial, police, or military control, and also of the shortness of the open season and the consequent necessity for haste and efficiency in the summer operations. Sabotage is openly preached by all Scandinavian labor-leaders, and is practiced by the men."

A Lawless Lot. In answer to a letter from the Boston office inquiring whether outsiders had anything to do with the labor-difficulties in Spitsbergen, he replied that there was undoubtedly prevalent throughout Norway a feeling that the Archipelago should be under the Norwegian flag, and that feeling explained in a measure the hostility or unfriendliness of the Government; but he could not be certain that the laborers had been directly influenced by "men higher up." He considered them a lawless lot, restive and dissatisfied, who habitually stayed only a short time in any place. They were also conscious that coal-miners were making trouble for their employers all over the world and they wanted their share in the growing power of labor. He cited two new engineers, Louther and Lewis, as asserting that the crew employed at Advent Bay was "the hardest-looking aggregation that they had ever seen in coal-mines."

Though these miners received wages about twice as high as they could get in Scandinavia, they seized every occasion to shirk their work. Turner told of one miner who put in five

hours and then decided to stay in his bunk. Yet he expected full wages, the privilege of keeping the clothing which he drew from the stores, and free transportation back to Tromsø. Another, on quitting his job, when asked to give up his blankets, not paid for, cut them into strips with his knife.

The Contract System. An attempt had been made to stimulate the Spitsbergen miners by instituting a contract system in accordance with which the more each man worked and produced the larger wages he received. Theoretically, and in many cases practically, this was an excellent arrangement for both the men and the Company. But unfortunately the work in the mine was for the most part confined to the long-wall plan whereby, since the mining had to be kept ahead of the cutting-machine, each man had a different place to work each day, so that when he had got his place in shape by throwing the rock back and the track laid to get out a good bit of coal, he would be shifted ahead to load the coal that some one else had got out. Moreover, some places were much more difficult than others, and ambitious miners were discouraged by the unintentional unfairness of their chances.

Turner proposed to procure a short-wall or breast-machine which by developing "room-and-pillar panels," each giving two men an opportunity to have working-places of their own and providing space for many more miners, would make contract-work much more satisfactory to them and greatly increase the production, without in any way interfering with their usual system of long-wall mining.

A Serious Strike. It had been agreed to give the men who were working on contract a six-kroner minimum wage-guarantee and try it out for a month. But during Turner's absence in Norway they went to Gilson and demanded seven kroner a day. Gilson told them they could work on the wage agreed or leave. The men held a mass meeting and voted to strike. Turner had stayed over one boat, as he had business at Trondhjem, but he arrived on the *Munroe* just as the strikers were beginning to intimidate the surface-workers and threatening to do mischief. Among them were eighty-two

Finns. Gilson had tried men of this nationality before in small numbers and found them good workers, but now they banded together and were the worst disturbers and trouble-makers in the whole gang. They were ready to use their knives, and as Turner characterized them, "seemed to have the whole Norwegian and Swedish element bluffed."

The mine had been idle for two days with only a watchman in charge. The Americans with a few faithful foremen patrolled the widely-scattered equipment and property as well as they could; but they were poorly armed. It was remarkable that the strikers, many of whom were desperate characters, refrained from any overt acts of violence, especially as the mail-boat, which the Norwegian Government had authorized against the protests of the Company, came in bringing liquor.

Turner landed on July 15, heard Gilson's story, and ruled that the right thing was done in making no concessions in the matter of wages: it would have meant a general increase; there would be no end to the process; a return to the normal level would have been out of the question, a precedent would have been established, and it would be impossible to maintain discipline.

Tactful Treatment of the Strikers. The Americans were desirous of trying conclusions with the strikers but, as they would have been outnumbered forty to one, Turner thought it better to be patient as long as possible, and not take the final stand until it was absolutely necessary: it would be bad for future operations if they got into a serious mix-up at that time. He calmly announced to the men that any one that wanted to go back to Norway was at liberty to do so, and he made immediate arrangements to get rid of them, for he anticipated that those that stayed might come to blows with the deserters, and the result, as he expressed it, would be that Finlanders would be stabbing Norwegians, Swedes injuring Finlanders, and a general international quarrel might ensue.

A Crisis. The *Eleonora Mail* had just been sent off loaded with about 2600 tons of coal, the *Alma* with 1400 tons had

sailed the night before the trouble began, but both these vessels would be back again within a few days after more coal. The *Locksley* was at the dock half-loaded; the *Lyng,* with a large quantity of building-materials and supplies was at anchor awaiting her turn at the dock; and the *Munroe,* as we have said, had just come in. Every day's delay was an additional expense.

Mr. Drummond MacGavin, the field engineer, who had been engaged to make a complete geological and topographical survey of the Advent Bay property, had left his wife in Tromsø; but just at this time she, with a friend of hers, arrived on the *Munroe* to make a visit while the vessel was loading. It was not regarded as safe to let these two ladies go back with the striking miners; they were brought ashore and stayed at the camp unmolested, though inadequately guarded. Quick and drastic action was required to cope with such a crisis. Two hundred and thirty-eight of the strikers were embarked on the *Locksley* and on the *Munroe* and sent back to Tromsø; the mine had been closed two days and the surface-works only one. Turner wrote to the Home office regarding the state of affairs:

Turner's Report of the Strike. "The last day of the strike was a critical time, and only by exercising the greatest patience and forbearance did we avoid the use of force. Some of the strikers had firearms, and a single outbreak would have necessitated a decided show of force. The striking miners stoned the ten Englishmen we have here, and kept them penned up in their house, and one carpenter who wanted to stay here was nearly killed on the *Munroe,* as we learned later; but the captain took him into his own room and protected him. All the Americans acted admirably, and these seven men undoubtedly held the entire force of strikers. No hand was raised against an American, although they circulated freely among the men, even during their periodic processions through the camp, marching under red flags. We patrolled your power-house, mine, tramway, dock, powder-house, warehouses, and camp twenty-four hours for each of three days, and these Americans undoubtedly ran personal risks but I have heard no word of complaint from any of them."

A Cincinnati Visitor. While this trouble was at its height the American hunting-yacht, the *Laura,* put into Advent Bay for the purpose of coaling. Mrs. Bessie Fleischman, the wife of Dr. Christian R. Holmes of Cincinnati, who afterwards wrote and privately published a beautifully-illustrated account of the party's experience in Northern Waters, devotes a half-page to this visit:—

"Advent Bay was very disappointing and most unattractive. The surrounding hills, though free from snow, present a barren aspect, and the only vegetation discernible was the brown-tinted moss on some of the rugged slopes. The croppings of coal to be seen everywhere only heightened the dreary, desolate effect. An American coal company operates on the south side of the bay, but the coal is brought from some distance inland. The miners were on strike—the usual cry of shorter hours and higher wage-scale. We coaled on the opposite shore, where an English-Norwegian company has driven a tunnel into the side of the mountain and is mining coal by gravity. The price is eighteen kroner (the krone is the equivalent of twenty-eight cents) a ton, delivered on board, and the quality much like Pocahontas. The coal was brought to the *Laura* by lighter because the English-Norwegian company, unlike its American competitors, has no deep anchorage."

It would be interesting to know whom she meant by the English-Norwegian Company that furnished coal on a lighter. We might mention also that there are no "croppings" of coal to be seen anywhere around Advent Bay.

2. AMERICAN ENERGY

If the miners imagined that they were going to cripple the operations of the Company they were quite mistaken: they knew nothing of the resourcefulness of typical Americans. Twelve hours after the strikers left, an improvised crew began loading the steamer *Banan,* and this in spite of the difficulty that had developed in the steam-crane.

Collapse of the Steam-crane. Just as the trouble with the men was on the verge of culminating, the Norwegian that

COAL DOCK AT ADVENT BAY

LOADING-CRANE AT STOCKPILE

had charge of operating the steam-crane broke the main-boom of the shovel short off and rendered quite useless that important piece of machinery. At first it was suspected that this accident might have been purposely and maliciously caused, but Turner promptly came to the conclusion that the whole device with its swinging gear was "a mechanical absurdity,—probably the only one in existence that is put to such use." Five times in a single month it collapsed utterly, leaving the reduced force without any mechanical power to load the vessels. Turner had a new length of eighteen feet made in Norway to mend the original boom, and it was rushed up from the shop; it broke within twenty-six hours after it had been put on. Every endeavor was made to mend it again but the essential weakness of the freak-design was most annoying. Turner resolved to arrange for a new swinging device for the next year, and to have a duplicate on hand to take up the work in case of further trouble, or to increase the normal speed of loading.

MacGavin's Resourcefulness. Lewis and Gilson took turns in "nursing" this deplorable piece of machinery. MacGavin, who had lost the crew that was helping him on his work of surveying, was asked to take hold with the loading-gang. He was ready for every emergency. Turner exultantly boasted that besides using every moment that he could spare from his regular work, he was always willing to help out in any capacity "from working in the blacksmith-shop to keeping store, and from book-keeping to firing on the steam-shovel." When it was necessary to send some one over to Green Harbor with a telegram ordering some new shovel-parts, and none of the Norwegians left at the mine was willing to go because the motor-boat was crippled and the fjord was full of ice, MacGavin volunteered to accompany Turner. They ran the boat over with a loose propeller and sent the message. Turner was enthusiastic over his absolute reliability; but he was not much less encomiumistic of all the other Americans. In a letter written later he said: "You have had good, loyal service from your entire inside organization on Spitsbergen this sum-

mer and I have nothing but praise for the Americans there. Gilson has worked very hard and very faithfully, and I know we have got a start on a good sound organization which will make possible expansion in operations."

A New Crew. His chief need at the departure of the strikers was to get a new crew as speedily as possible. All the foremen were faithful and stood by, but there were no laborers, carpenters, or miners. He sent a wireless message for six men to be brought up on the next cargo-boat, and these passed the strikers at sea. He obtained eight men from Captain Marcussen of the whaling-station at Green Harbor; these with the members of the staff, the cooks, waiters, stable and barrack men, and all the crew of the steamer *Lyng,* were mobilized in two shifts, so that work was almost immediately resumed.

Trouble at Tromsø. The strikers on reaching Tromsø gave the police considerable difficulty. Forty-nine of them, who had been forced into deserting, turned about and reëngaged themselves. The others tried to prevent men from boarding the ship, and were so violent that the police had to use their clubs, and locked up twenty-six of them. There would have been worse trouble probably, but, while the strikers were on the ships going to Tromsø, Turner telegraphed to the Government, asking that the *samlag,* where spirituous liquors were sold, should be closed. That was done. While Saether was paying off the men, the office in Tromsø was guarded by the police.

According to the contracts signed by the men, their return-fare was to be at their own expense; but some of them refused to abide by this clause and brought suits against the Company. As these were invariably decided in favor of the strikers and contrary to justice, they had to be appealed to the higher courts; they dragged along for months,—a great nuisance to the defendants.

Trouble with the Ladies. Owing to the importance of the steam-crane in loading the vessels at the dock and its propensity to break down when most depended on it, Turner

dared not trust its operation to any Scandinavian, so Gilson took charge of the shovel one shift and the coal-cutter the next. One American had just been taught to manipulate it when his wife, who was at Tromsø, and the wife of another American employee were very discontented because the house building for them was not ready on time, sent him an imperative letter to come back, and permission had to be granted him to go. Turner wrote that the houses were pushed as rapidly as possible, practically the whole carpenter-force having been kept on them since the strike. The ladies, he wrote, "had given a good deal of trouble all along, charging the Company with bad faith and misrepresentation about the time they could come up to Advent Bay. They have not been disposed to make any allowances for the late season, which delayed the arrival of the building-material, or for the strike-conditions which slowed up the work."

Gradually at first and then with rapidly-increasing impetus the activities of the mine were put into a state of comparative efficiency. What was really accomplished was outlined in Turner's annual report. The deliveries of Spitsbergen coal amounted to 23,523⅕ tons, leaving undelivered about a third of that amount (10,627 tons), most of which by reason of the strike-clause could be postponed until the following year, though 2000 tons were supplied by substituting English coal at a loss of 26,565 kroner. In order that this might not happen again, he proposed to adopt the policy of getting on the stock-pile all the coal sold before making any further sales.

A Serious Accident. The experience of the Summer made it evident that there was no hope of making any profit out of the mine unless more than 40,000 tons could be disposed of, unless rapidity of despatch could be ensured, and unless a considerable increase of equipment could be adopted. They were fortunate in avoiding serious accidents to any of the ships, although the weather was for the most part extremely bad. The *Alma's* bow-plates were injured by being crushed in the ice, and the owners were trying to collect damages. The mine itself had been particularly free from serious accidents from

its first development; but during the period of uncertainty preceding the strike, while Turner was at Tromsø, a Finn, of the better class and a faithful worker, came down from the camp having had his leg amputated. As he was sitting near the head of the incline-tramway which leads up to the mine, an English employee undertook to start up the motor and hoist the car which was not stopped promptly enough: it was pulled off the track, catching the man's leg, breaking and crushing it badly. The Company's physician performed the operation, and the man, crippled for life, was taken to the Tromsø hospital. Turner guaranteed his expenses there for six weeks, bought him an artificial leg at a cost of 150 kroner, and gave him 500 kroner when he left the hospital. The accident, which was not the fault of the Company and entailed no legal responsibility, thus caused a loss of 900 kroner. The incident shows how fairly and even liberally the men were treated.

Added Equipment. In spite of the desertion of carpenters and other technical workers, considerable mechanical equipment was added, such, for instance, as a movable steel hopper for receiving the coal lifted from the stockpile, and capable of holding 60 tons; a new steam-winch for the pile-driver, and scales for weighing the coal before it was tipped into the colliers, thus automatically checking the weighing and counting device on the ropeway and insuring an accurate record of shipments. Up to that time, although 32,000 tons had been shipped from Advent Bay, none had ever been weighed at the dock.

There were also built a concrete and steel fireproof blacksmith shop, lunch-room, office, and passage at the mine-entrance to take the place of the various temporary structures put up after the fire; a new house for the motor working on the surface-incline to the mine was built under rock-cover, and the motor was remounted. The bridge and dock were overhauled and greatly strengthened with ties, bracings, and rock-filling. The gravity-incline was widened to accommodate four parallel tracks, and this necessitated cuts and fills aggregating more than two hundred and forty yards.

New Houses. Two new family cottages were built and occupied by Lewis and Louther, the American foremen; a new bunk-house, making the fifth, with all modern conveniences and well-equipped for accommodating sixty-four men, with a room for each four. A deal building was hauled across from the English camp, re-erected, sheathed inside and out, and decked with a new roof. A deal building, it must be explained, is the ordinary Norwegian house. It is built of three-inch planks, each about nine inches wide. Two tongues and grooves are made on each edge and, fitted together, form the walls. In the better class of houses these are covered with building-paper, and sheathed both outside and inside with dressed "siding," made of inch lumber, which also composes the ceiling. This form of construction makes a building both strong and warm.

Some of the houses erected at Advent Bay in 1907 were built of three courses of inch boards and three layers of building-paper, making two air-spaces in the walls, and requiring only three-fifths as much lumber as the deal-construction, and the rooms were as warm as those in deal buildings. It was so difficult to make Norwegian carpenters understand any form of construction different from that to which they were accustomed that the simpler and less expensive form of building had to be abandoned.

Conventional Ideas. In this connection and illustrating the rigidity of a Norwegian's ideas, Mr. Longyear relates that when he had ordered several thousand feet of lumber at a lumber-yard, and dozens of sash, doors, and the like, the manager of the yard came to him next day and asked if he were not going to build any houses, and when told that was what most of the lumber ordered was for, he said, "But you haven't ordered any deals."

When told how the houses were to be built he exclaimed, "But you can't build houses without deals!" He was assured that many houses were built in that way in the northwestern part of the United States, where the weather was as cold as at Advent Bay. He still insisted that houses could not be

built without deals and, thinking that he was not understood, he insisted in taking his customer to a building to show him how a house was built of deals. He assured Mr. Longyear that "houses have always been built that way. The 'old people' did it that way, and they knew." He also insisted that a house could not be built without mouldings and, when he was told that no mouldings would be used in this mining-camp, he left with an expression on his face that indicated that he was convinced his customer was mentally deficient.

Toward the end of the season a roomy new office-building, with concrete vault, drafting-room and a number of office-rooms was completed. Various other structures were built or improved. These additions were only the advance-guards of a big army of enlargements mobilized in order to render the mine a paying investment. These enlargements would require increased power to run the additional machinery in the mines, haulage-equipment, conveyers to carry the coal from the working-faces to the tramways, and mechanical devices for stock-piling the winter output, because men could not work in bad weather on the exposed summit of the stock-pile, which, by Spring, would be several hundred yards in length.

The Winter Water-Supply. The method of obtaining a supply of water during the Winter had to be radically changed in view of the magnitude of the operation involved. This had been done by hauling ice and snow and melting it as needed, but it now required the labor of several men and horses all the time from the first of September until the first of May. A surface-condenser at the power-house had been tried but proved not to be a practicable device for Spitsbergen. A condenser to convert sea-water into fresh water, also a ropeway to the nearest glacier, were contemplated.

In the expansion of a scheme of exploration into a great mining-enterprise, permanent and more comfortable houses were needed, and it was recommended that about twenty new buildings should be erected in the course of the next two years. Increase of electrical equipment was desirable, and concrete construction was recommended for several reasons: All mate-

FAMILY HOUSES, LONGYEAR CITY
OFFICE BUILDING AT LONGYEAR CITY

rial for wooden buildings had to be brought from Norway, and wooden buildings were always exposed to the danger of fire; but only one-ninth of the material for concrete construction had to be transported. The structures at the entrance to the mine were of concrete and steel, fire-proof, and they were perfectly satisfactory. Some of the other buildings had concrete walls but wooden roofs.

The incline to the mine, used in winter to transport the men up and down, required a car equipped with safety-devices instead of the home-made lorry which had been extemporized for trying out the experiment of saving time in moving the miners.

Machines of various kinds were needed and Turner discussed methods and means for handling the coal in the most adequate and economical manner when the operation should begin to assume the proportions of a real mining-enterprise; it was evident that little or no profit could be expected until the output reached considerable proportions. With a total production of rather more than 26,000 tons for that year, there had been a deficit.

Survey of Part of the Coal-fields. The most encouraging feature of the summer's work was the result of the survey accomplished by MacGavin, and the establishment of a reasonably certain estimate regarding the extent and value of the Advent Valley coal-fields. This undertaking was hindered by the strike, but nevertheless was remarkable for its scope. It showed that there were eleven million tons of positive coal, thirteen million tons of probable coal and forty-three tons of possible coal, making a total of sixty-nine million tons in the seam known as "Number Two." No definite investigation of the other three seams was attempted. A base-line 465 meters long was established in Longyear Valley, and the surrounding country was triangulated, aluminum-tablets, bearing the name of the Arctic Coal Company and set in cement marked with rock-monuments, indicating the bench-marks and triangulation-points, and making indefeasible proofs of occupation.

Remarkable Contour-maps. Two men from the United States Geological Survey were engaged to map the property of the Coal Company's territory, under the direction of Mr. MacGavin. One map was drafted "with contour-intervals of twenty-five feet and a scale of one thousand feet to the inch," and covered twenty-six square miles. Another, covering an area of about four square miles around Longyear City, was drawn with the same contour-interval but on a scale of four-hundred feet to the inch. Still another with a contour-interval of ten feet and on a scale of fifty feet to the inch, covering an area of fifty acres, showed the ground immediately surrounding the stock-pile, and included the bottom-contours from soundings with indications of the depth of water below mean tide-level at five-foot intervals.

The maps were sent to Washington to be engraved and printed, but the printing was so imperfect that they had to be thrown away. The printers had been paid for their work, but when the printers' attention was called to the glaring errors in their work they refused to rectify it. It was late the following year before the printed maps could be sent to the engineers on Spitsbergen and their report was received in Boston.

They also surveyed the mine, embodying their work in maps of all the tunnels and walls with five-foot contours showing the topography of the bottom of the coal-seam.

Trails Constructed. Several trails were constructed from the valley up to the coal exposed in exploring-pits, and connected with other trails run as closely as possible along the coal-horizon. Test-pits were opened at regular intervals and protected with planking so that they might be available for future investigations. Directly across the valley a new mine-adit was opened for a distance of forty feet, the coal having proved to be the same quality as that in the working-mine, in fact an extension of the same seam.

The New Mine. Turner recommended the extension and enlargement of these trails, so that the coal-seam "Number Two" should be exposed over a large area, with test-pits at frequent intervals, timbered and walled up and permanently

accessible. He proposed to build a house on the east side of Longyear Valley, near the entrance to the new mine at an elevation of about nine hundred feet above sea-level with accommodations for a crew of eight men systematically employed in driving the entry on that coal; and a house at or near Advent Bay Point with another crew of eight men kept at work driving "a new double-entry toward the south-east, to make a new mine tributary to the fine harbor and deep water close to shore inside the Point." This piece of development-work would take years to complete, for it would be four thousand feet long, but it would eventually connect with the main entry to the mine; its chief immediate importance would be in keeping trespassers off and in insuring the Company's rights in that territory. These recommendations were adopted and the new mine was initiated.

The Excellent Cost-accountant. Turner in the early Summer had recommended to the Company to employ G. W. Bryan, an expert and reliable mine-cost accountant. "He is a good man," he wrote, "and we need him at just the point where he will fit in our organization." This appointment had been made. Turner thought it a very strong "move toward getting things on a business-basis." Bryan reached Spitsbergen early in September, and confirmed this prognostication: "In fact, from a business standpoint he is about the most valuable accession to your staff here."

Winter Superintendent. Turner had many misgivings about the winter superintendent, who had developed a tendency of late to disobey, or disregard orders. He seemed to have "gone stale," perhaps due to his long residence in the strongly stimulating climate. Although he had rendered good service in the past, his work was now not at all satisfactory. He assumed a hostile attitude towards the work Bryan was trying to do, and annoyed Turner in many ways. It was too late to find some one to take his place. He understood the language, customs, and habits of the men better than any one else in the organization, and very reluctantly Turner saw himself forced to keep him on for another winter, at the end

of which his contract would come to an end. In the meantime he felt that they must somewhere find "a capable, business-like, broad-gauged man to take charge on Spitsbergen during the winter: one who will work for the Company, obey orders, realize the necessity of rapid expansion of our industry there, and in whom we can have confidence and trust. . . . I realize that he is an old employee of the Company, and that you have held him in some personal regard, and that therefore some explanation is needed."*

In an emergency it was possible that two of the Americans on the staff might develop sufficient capacity to take his place; but one lacked experience in dealing with Norwegians and knew little of long-wall mining or executive-work, while the other, in addition to the same disqualifications, suffered from rheumatism and was frequently laid up entirely.

3. THE LABOR PROBLEM

Experience with the miners made it evident that the Company would have to grapple with the problem of labor if they were to get a better set of men. The productiveness of the mine and its profitable working depended on having efficient miners. It was remarkable how, while the small force enlisted after the strike was putting in all their energy, four times as much coal was got out per man as with the mixed crew previous to the strike. It was also remarkable that although the men had worked on a contract-system no miner had ever claimed the liberal bonus offered for extra-production. "The Norwegians," said Turner, "prefer to see how little rather than how much they can do."

The Haying-field Type. The plan tried that summer of allowing Gilson and Saether to hire all the men and to be answerable to him for them, had not proved satisfactory. Gilson brought with him from England ten miners as an experi-

*This former employee of the Arctic Coal Company afterwards conducted a successful colliery operation in England, which may be an indication that his disaffection was only temporary and due to causes which ceased to operate when he removed to a different part of the world. J. M. L.

ment; but they also were inferior men, "of the hooligan type," evidently not representative of what England could do or very much superior to what Turner called "the youth and flower of Norwegian chivalry," caught in the drag-net of Jenssen who was sent down to Tromsø in the middle of the season to help Saether and Mangham rob the haying-fields of their workers.

Outside Foremen. So Turner was arranging with Gilson to have his foremen come to Tromsø a fortnight before the first spring trip and help pick out suitable men. The responsibilities of the summer seemed to develop several excellent outside foremen, and it was suggested to let each of them pick out fifteen or twenty workmen in Norway, engage them, and be personally responsible for their behavior during the summer. Turner was a great believer in a sufficient number of good foremen: he knew by experience that "men work better and discipline is better when no foreman has more than twenty-five men in his gang."

Experiments with British Men. He desired to make further experiments with English and Scotch miners, and Mangham was ordered to bring ten or a dozen with him on his return from his summer vacation. He also proposed either to send Gilson or to go himself to England and try to bring twenty or thirty miners up on the first spring trip. He wanted to have a goodly proportion of English miners, as these men, he said, "never join with the Norwegian laborers in their demands, and, in case of strikes, operations could always be continued, even though in a small way." This coincided with the recommendations of Mr. Longyear himself, who thought it might be a good lesson to the Scandinavians to discover that the Arctic Coal Company was not wholly dependent on them. Turner reported that the Norwegian newspapers published columns of slanderous lies about the food furnished the miners at Advent Bay, and copied *verbatim* the stories circulated by the returning strikers: those articles were copied all over Norway and in European periodicals: he thought they undoubtedly had some effect in making it difficult in getting men

to hire with the Company. There was good ground for libel-suits against the papers.

He himself proposed to join the Norwegian Employers' Association if they would admit a representative of a foreign corporation,—though he thought it was doubtful if they would. The advantage was that they kept track of laborers and furnished a list of undesirables.

A Drinking Doctor. The resident physician at the mine had always been hired through the Norwegian Doctors' Association, but the men furnished in this way had been invariably unsatisfactory. Turner reported to the Home Office that this year's doctor had been like all the others whom they had employed—"only a little more so": "He drinks everything he can get hold of—alcohol, fluid extracts, ether, or any anesthetic or drug, and he has been either intoxicated or doped all summer. It does not seem right to leave American women here for the winter with a drunken pig who is personally so uncleanly that no white man would let him touch him."

His contract ended in September, and the association had announced that they would no longer provide a doctor at 5000 kroner: at least 6000 and probably more would be the contract-price. "It seems to me," Turner wrote Mr. Longyear, "that at this price (over $1500 and all expenses) we could each year get a young graduate from America to stay one year."

Another plan he proposed was to engage some reputable medical college in England to send over a reliable young physician at £250 sterling on a thirteen months' contract. This question was settled when Mangham returned from his summer vacation bringing with him an English friend of his without any written contract but with merely a verbal assurance that the Company would pay him £24 sterling a month. Several witnesses testified that he had said that, but Mangham declared he had said £25 and not £24. Turner got that incorporated in a contract before any further increase in price was sprung on him. Mangham brought thirteen other men, all without contracts, and it required considerable address on

GEORGE W. BRYAN

Turner's part to get their salaries or wages reduced to definite rates and put in writing.

Liquor Smuggled in. Though weather and ice conditions at Spitsbergen had been most unfavorable throughout the summer, a number of tourist steamers came up to Advent Bay. About the middle of August the North-German Lloyd vessel, *Der Grosser Kurfürst* appeared. Turner warned her captain against landing liquor or fire-arms; the officers took pains to heed the injunction, and little drunkenness ensued. But when the *Andenæs* of the Norwegian Vesteraalske line came up and permission was asked to anchor off the dock the officers who guaranteed that nothing intoxicating should be offered to the Company's employees, violated their agreement; in spite of the utmost watchfulness on the part of Turner and his staff, the book-keeper, the electrician, the storekeeper, the weighman, some of the laborers, and, of course, the doctor, who went aboard the ship, became intoxicated. Four of these men were drunk three days on spirits in some way smuggled ashore. The *Kong Harald* and the *Neptun,* which arrived a little later, caused a repetition of the nuisance.

Drastic means had to be devised to keep Norwegian tourist-steamers from coming into Advent Bay, or at least to prevent their passengers and crews from landing and the employees of the Company from going on board. Liquor was also occasionally sent by mail from Norway, but there seemed to be no way of preventing this breach of the Company's regulations.

Laborer's Contract. The combination of fire-arms and liquor was particularly dangerous, and every miner who signed up to work at Spitsbergen for the Arctic Coal Company had his attention called to the sixth article of the contract which was this:

"*Strong Drink and Fire Arms*: The undersigned pledges himself not to bring or procure or use intoxicating liquors on the passage to Spitsbergen or during his residence there. Infraction of this rule shall be cause for immediate discharge.

"The Company reserves the right to search the laborers'

luggage and to confiscate any liquor or fire-arms found in the same."

By another stipulation in the contract behavior involving breach of peace, idleness, bad habits, refusal to work at any given time or place, conduct subversive of the Company's interests, or violation of the terms of the contract, the person concerned was liable to be discharged on the spot with cessation of wages, to pay a krone and a half a day for board as long as he remained on the Company's property, and to take the next boat back to Norway. This regulation was a corollary to that providing for transportation:

"*Traveling-expenses*: The Company provides free passage with board to and from Spitsbergen. In case a laborer during the summer season returns of his own accord to Norway before September 30, he will be obligated to pay thirty-two kroner for his return-passage. Moreover, if any laborer be discharged for misbehavior on his part or for breach of the contract, thirty-two kroner shall be deducted from his wages to pay for his passage back to Norway."

The strikers that returned to Norway before the end of the season were surprised to find that the Company stood on its rights: they were forced to give up 7500 kroner to cover the cost of transportation. The list of the provisions furnished the camp proves how good and abundant the food was. Turner was quite within bounds when he announced to Mr. Longyear that they paid higher wages and gave better food than any other corporation in Norway.

The Kwasind. The force of miners and laborers was gradually increased until in mid-September there were about three hundred—"a motley, inexperienced crew," but under competent leadership producing surprisingly good results. The fleet of colliers came to the dock, loaded up, and went back with the regularity of clock-work; if so much time had not been lost, it would not have been necessary to cancel one vessel's time-contract or urge the Home Office to employ the *Turret-Bell*—or, as she was newly christened, the *Kwasind*—in freight-service between England and Norway.

An Electrician from America. Another slight misadventure turned out to be an advantage. A master-mechanic was needed, and Turner had engaged one in England through Edgar Rickard, the well-known engineer of London. This man's doctor advised against his going to Spitsbergen, and Turner cabled to Boston for a substitute. Saether, "alarmed at the situation but entirely without authority or suggestion" from Turner, wired Mangham in England to secure one. On the same day Turner got word from Norway and from America that a mechanic had been engaged and was on his way.

The mine had been cut off for a fortnight from telegraphic communication, the power-boat used in taking messages was out of commission; the new wireless plant at the Camp was not as yet working, and the ice completely blocked Green Harbor. So there was no way of stopping either of the men from coming: it turned out, however, that the mechanic from America was an electrician: that allowed dispensing with two or three inefficient Norwegians and brightened the prospect of having the work better done.

Turner now felt that the situation was working out satisfactorily; there was going to be a good and complete organization left for the Winter: they had "fought along" all summer without mechanic of any kind, without any good electrician or even a power-house engineer or blacksmith, and they had come out in fairly good condition though the work had been too much for the few who bore the brunt of it. But the two hundred men who would over-winter would have the advantage of capable and trained supervisors, and he hoped that he should be able next Spring to report an excellent showing.

4. THE END OF THE SEASON

Just as the spring at Spitsbergen had been tardier than usual, so had the summer been the wintriest known in the memory of man, and the actual Winter freeze-up came during the first week in September, unusually early. It cut off all the water so essential for running the machinery, and as there was not at that time enough snow or ice to melt, the

power-plant had to be shut down part of the time and all the horses were kept busy night and day to haul water half a mile for the little winch that furnished power for the rope-haulage on the dock: as it was of the non-condensing type it used up an excessive amount of steam and required constant renewal of the water.

Loading by Hand. Just at this critical moment the steam-shovel broke down for the sixth time, and the last two coal-ships had to be loaded by hand—a very slow and expensive operation, and the last cargo was got on board the *Locksley* only at the rate of 400 tons a day, and she was not ready to sail until about the 20th. Turner was much relieved that there was no prospect of the *Kwasind's* arriving, for if she had showed up it would have been impracticable to load so large a ship before October 8. "Given ideal weather-conditions," he wrote, "this might be safe. But the delay of a day or two in her arrival, any interruption to the loading, and any unfavorable change in the weather, would make this hazardous."

Escape of the Munroe. How hazardous it would have been was proved by the narrow escape which the *Munroe* had of being kept at the island all Winter, and probably of being crushed in the ice. The experience was thus described by Turner in a letter written from Tromsø on October 14, just after his arrival from the North:

"The Tromsø office nearly left us frozen in at Spitsbergen. We cleared the *Munroe* from Advent Bay on September 9, with orders for her to get back as quickly as possible with the winter supplies. Delay after delay in Norway followed, until she was not due at Longyear City until September 29. At that time we had more than a week of below-zero weather. Finally she came into Advent Bay during the night of October 3. She was loaded to the guards, the deck-cargo extending to the level of the bridge-rail, and all a solid mass of ice. The fjord had started to freeze over, and when we cleared from the dock at 2 p. m. on October 5, Advent Bay, Ice Fjord, and the open sea were frozen over solid. We forced and rammed our way to the mouth of Green Harbor, and then, as we had

on board the winter supplies for the Norwegian telegraph station, as well as the meat and potatoes for the Ayer and Longyear camp, we had to turn into Green Harbor and ram our way to the Whaling-station Point.

"The ice was particularly thick here, and we would often make no more than fifty yards before we would be stopped and have to back off and ram again. Having delivered the provisions, with the temperature 10° below zero, we turned out to sea and had to force our way through a solid sheet of newly-frozen ice to a point twenty miles northwest of Prince Charles Foreland, before we encountered any open water. On account of the extreme cold, our captain and mate agree with us, that twenty-four hours later we could not have made it, which would have been a serious matter. However, as we got out, there is nothing more to be said, except that for once we have pretty definitely proved what the time-limit may be for leaving Advent Bay in the Fall. For a time it looked as though October 5 was a little beyond the limit."

Disappointing Deliveries. He expressed satisfaction at having come out as well as he had with the dealers whom the restricted production of the mine had obliged him to disappoint in the summer deliveries. The contract with the Nordenfjelske Company was the only one that permitted substituting D.C.B.—that is to say the best English coal,—and he had expected to buy the full order although the price had gone up to 21 shillings and Gibson's signed arrangement disposed of the 13,500 tons at 15 shillings a ton. He then would have filled the other contract-orders from the Advent Bay stock-pile; but the strike afforded a fortunate loop-hole of escape. He delivered 8500 tons of Spitsbergen coal, and bought only 5000 tons of the English coal; then by tact and finesse he satisfied all but the two other dealers, and came out of the difficulty with no law-suit.

Satisfactory Outcome. He had paid £100 sterling for relinquishing the *Folsjø* in June, but later the owners of the *Eleonora Mail* paid an equal amount for the return of that steamship, which was wanted for a more advantageous charter.

The strike lost the Company no money on their cargo-ships, and the litigation threatened by the two small dealers involved only 4000 tons, and the ultimate deficit caused by the labor-trouble was not serious.

Contracts covering the delivery of about 22,000 tons for the Summer of 1913 were already signed, but it seemed best not to make any effort to sell more than that, until it should be known how the Winter production fulfilled expectations.

5. TRICKS OF THE SQUATTERS

The season had passed with the usual exchange of amenities between the American owners of the Spitsbergen territories and the Norwegian claimants. The spring campaign opened with a barrage-fire by Andreas E. Schröder, who on March 15 charged Ayer and Longyear's "servant Captain Naess" with having taken from his "already in 1900 staked property" the posts and tablets, and carried them to Trondhjem, and he demanded that Ayer and Longyear should cease work on his premises and move away immediately. "The coal that your workmen have taken out," he said, "must not be taken away from the place, likewise the building of houses and docks must not be done on my property, because measures will be taken against such work."

Hjorth's Protests. It had been thought possible that the simplest way of getting rid of Hjorth and Schröder might be to buy them off, and a tentative offer had been made by Gibson in May, 1910: this fact was seized upon by Schröder as proof positive that the right of ownership was his, and he used like a boomerang the argument: "as it was your people who began work there it is your duty to move away from the place when you are made acquainted with the facts." This odd argument he repeated in a telegram to the Norwegian Foreign Department on May 6:—

"Arctic Coal Company knows well enough that it is on my land they have opened mining, and when I protested against the robbery they wanted to buy my land. Their proposal makes impossible operations by other interests in Green Harbor, as the

harbor is included in my property which has passed to Director Hjorth, who must give all information."

A Big Claim. Hjorth was attempting to form a stock-company having for its basis the claims of Schröder and of his Kulkompagni Isefjord to the whole region of Green Harbor including the whaling-station and its shore-rights. The whaling company was getting practically no whales—their whole summer catch was only thirteen as against seventy the year before—and was considering the expediency of abandoning the business. Smith and Bull had offered their land to Anker. When Hjorth learned of this possible transfer, he raised a mighty protest, declaring that he, as representative of the Kulkompagni Isefjord, had absolute right to the ground whereon the whaling-station stood, the title being clear since the year 1900, and to the harbor as well; he forbade their disposing of the same by sale to others "perhaps foreigners," he slyly added and ended: "I must reserve my rights in every particular, and hold you responsible for any damage which you might occasion me by dispositions in this direction."

He had not thought of making any objection to the Nimrod Company's use of the harbor for whaling-purposes as long as such use did not conflict with his interests, but since they were arrogating to theimselves the right of selling this valuable privilege he declared that he was obliged to "lay down formal protest against any kind of use whatever of the range, which lies within the boundaries of what Schröder annexed as property in the year 1900."

Hjorth's Arguments. Hjorth insisted that Schröder and Zakariassen had fenced his annexation "with bolts, signboards, and wire," and the accidental circumstance that the wires had been reported lying in a tangle on the ground did not vitiate the original claim: they might have "fallen down or been torn down by snow or human beings," he urged. He asserted that Schröder had steadily protested against the forcible entry upon his property, and had "kept up his and the rights of the Isefjord Company by watching up there every Summer, since the tract was annexed."

Hjorth seems to have given a similar warning to Anker's men; information regarding this merry war was communicated to Mr. Longyear, who expressed hope that the various Norwegian claimants would "get by the ears and fight among themselves."

Death of Anker. Anker himself died early in the Summer, but while he was still occupied with his earthly affairs he wrote to the Arctic Coal Company in reference to their usual protest:

"In reply to same I have to say that really there is no need for you letting on as if I have been trespassing on your properties. If you will go carefully into the story of taking up of land on Spitsbergen from the day when I came on the stage, I think you shall admit that in all righteousness you are the party that are committing trespass on my property. Therefore, the only advice which I can give is this, that you shall equally consider that what you are doing in this respect and have done till date will stand for your own risk, and further, that for any trespass, loss, and damage to my property caused by you, you and you alone will be held responsible."

Complications. Later in the Summer, on August 8, Turner wrote from Advent Bay that the question of adverse claims at Green Harbor was becoming more and more complex. He had just been over to Coles Bay and found the two original Ayer and Longyear signs and one Arctic Coal Company mark standing upright and in good condition. The house, which seemed somewhat out of repair, was occupied by a Norwegian geological party under Herre Holmsen of Kristiania, and a Government mapping-party under Captain Staxrud. None of Anker's posts or notices of any kind were to be seen. At Green Harbor the foreman for Ayer and Longyear with six miners and a cook were working industriously and since the last October had done five hundred and fifty feet of new work, with drifts ten feet wide, entirely in coal with little or no rock interfering. Three hundred and seventy-five tons of this coal had been furnished to the Nimrod Company, and more than eight tons to the wireless station and about 275 tons were

on the dump. The question came up what would be done with it in case the Nimrod Company gave up the whaling-business. This coal was growing better as it opened up wider and thicker.

Threatening an Injunction. Turner found three parties on the Ayer and Longyear tract. He wrote Mr. Longyear:

"Anker has a small ship and about twenty-five men on Spitsbergen, with about a dozen working at Green Harbor. They have opened a mine about 1200 feet south-east of your pit, on the same seam, and are driving at an angle toward your workings. Anker is constructing a small rope-tramway to the water's edge, and expects to ship fifty to one hundred tons of coal to Norway. If he is allowed to deliver this coal in Norway without a protest from us, it may weaken our position."

He was therefore considering the advisability of attaching or otherwise tying up that shipment on its arrival in Norway. It was questionable whether the Norwegian courts would grant such an injunction but it seemed worth attempting. Later Anker's ropeway proved itself incapable of doing the work, and all that was got out was fourteen sacks of eighty kilos each—about a ton!

Anker's company was also building a good-sized house near the Ayer and Longyear barrack at Green Harbor, but when it was completed their winter force consisted of one foreman and one miner, who started a new pit and were desultorily working in it.

Three Rivals at Work. Hjorth also was working on the American Company's tract nearer the head of the harbor, and had also built a new house. A canning company from Stavanger had a ship in the harbor, and had not only staked over the Ayer and Longyear ground but was employing a crew of men to open pits near the mine. "At present your working-force at Green Harbor," wrote Turner, "is outnumbered by at least three other companies, all crowding in on your mine-workings from both sides, and planning new buildings and equipment."

A new claim which was numbered Nineteen came as a

great surprise to everyone connected with the Arctic Coal Company. As presented by the Norwegian Department, it covered Advent Bay Point and several kilometers of water-frontage and included the Tourist Hotel, which had long been moved away. It was located in the name of the Kulkompagni Isefjord, the corporation which had taken over Schröder's claims, and was trying to control the whole of the Green Harbor shore on the basis of Hjorth's long-continued bluff. This claim seemed preposterous, but its menace lay in its inclusion of a part of Advent Bay where the Arctic Coal Company's operations were likely to be extended on a large scale: it took in the deep water back of the Point and the temporary wharf that Munroe had built years before.

Turner was satisfied that this claim was entirely valueless to those that had revived it, nor would it, even if it were relinquished, affect the practical use of the remainder. Yet he felt that it should be entirely cleaned up so that there would be no possible flaw in the title to the ownership of the Advent Bay territory, and he wrote that he was certain no traces of such a claim or marks of any kind were on the ground.

Appeal to the Stockholders. Mr. Longyear thought it would be well to call the attention of the Norwegian stockholders to what their fellow-countrymen were trying to do to them; this suggestion was adopted by Saether, who drew up a petition and circulated it among them for signatures, protesting against this eleventh-hour claim. They all felt that this particular matter should not be submitted to arbitration; nevertheless if the Department at Washington advised it, the Arctic Coal Company would insist that the claimants should deposit an adequate sum to cover all costs and the expenses of the successful party, the Company of course, agreeing to do the same thing. Mr. Longyear thought this excellent suggestion should be incorporated in all cases where arbitration was demanded.

Turner was asked to compile an historical statement concerning the work done by all claimants and counter-claimants, but he discovered that no definite or complete record had been

kept either in the Tromsø office or at Kristiania, and it was almost impossible to collect accurate information on the subject. He wrote:

Turner's Estimate of the Claims. "Speaking generally, this question of counter-claims at Spitsbergen is a farce. None of these trespassers have ever engaged in serious work of exploration and development. Many of them have done no work whatever. If we could have a board of arbitration on the spot it would not take us long to convince them of the absurdity of many of these claims. The basis of many of them is the fact that some hunter landed on the shore, erected a stake and then left the ground. The most of the work is then done in some office in Norway. Absurdly elaborate maps are gotten up and filed with the State Department at Kristiania, showing the ground claimed. If a map of this kind is the basis of a claim any youth in Norway could cover the whole of Spitsbergen. I think many of the counter-claims would fall in a moment before a board of fair-minded arbitrators. I understand from Swenson that the Norwegian Government is ready to stand the expense of arbitration at the Hague for the Norwegian claimants. Swenson's idea is that the State Department at Washington would not do likewise for us, but that we should have to bear the entire expense. This seems an extraordinary state of affairs."

Work of "Financial Pygmies." None of the trespassers seemed to have the slightest knowledge of practical mining; whatever they did was wasted effort; the pits they started, invariably left unprotected, filled with water and froze solid.

Had they conducted their mining scientifically, it was not probable they would have made it pay. The Arctic Coal Company, after six years of exploitation of a far better coal with labor-saving machinery and the expenditure of hundreds of thousands of dollars, had not as yet demonstrated that the venture was going to be successful: how then would these little financial pygmies accomplish anything, unless by levying a sort of blackmail on the American Company? The whole business was preposterous and exasperating as well as expensive.

A Blackmailing Scheme. This was evidently their game. For instance, in September, the Boston office received a letter from the Monnot Industrial Company of Paris, which was trying to dispose of the claim of J. Falck-Dessen. Because Dessen had erected two claim-notices one hundred and fifty meters and five kilometers, respectively, from the Ayer and Longyear house at Green Harbor, and because the annual report of the manager for the year 1909 confirmed that fact, it was taken for granted by the trespasser that Ayer and Longyear acknowledged his claim! The Monnot Industrial Company were impressed by its possibilities. They wrote in their letter:

"Mr. Dessen has verified his pickets yearly, and says that your agents on the spot are well aware of the location of his claim, its limits, and its value.

"The territory contains a coal-field as high quality as any Spitzberge coal and according to calculations represents over two millions tons of coal.

"Furthermore, Mr. Dessen states that his sea-board is in deep water, and that vessels can land directly, which is a great advantage."

Dessen himself was apparently in deep water: he wanted $25,000 for it!

When a person's property is stolen, he generally is well aware of its value. The secretary of the Arctic Coal Company, W. F. Bentinck-Smith, replied that he was compelled to advise the Monnot Industrial Company that Mr. Dessen had nothing to sell: "At all events," he added cuttingly, "we should not care to consider negotiating for his alleged claim at the price you mention or any other price."

Turner thought that the time had come when a definite plan of action ought to be worked out for the further occupation and development of the Green Harbor territory, even though it was not particularly promising; in his annual report he said:

Plan to Develop Green Harbor. "If there is danger of losing the property we should do no more development-work but should at once commence the extraction of all coal blocked

out. If the property is to be further developed, the plan of work in the mine should be immediately revised. Operations up to this time have been more in the position of occupation than of serious mining work or production, but we are getting to a point where we should cease marking time there and adopt a definite and far-reaching plan of action."

He left orders for Christian Øien, the Green Harbor foreman, to keep on with the work designated, and hoped that the winter's product would be at least 500 tons. As it was dubious whether the whaling station would take any of it,—indeed it was reported that the Anker syndicate had bought the property of the whaling corporation,—all the coal mined during the Winter was to be hauled by the horse down to a point close to tide-water, whence it would be removed on lighters to be used for bunkering tourist-ships or the *Munroe*.

The really paramount issue at Spitsbergen was for some method of preserving order. With the great increase of numbers the difficulty of maintaining discipline increased in geometrical proportion. Turner saw that unless official authority were soon established the danger would be so great that the Company's representative would be obliged to resort to armed force to protect the property. It was possible, also, that trouble might arise among the various trespassers, and there again armed intervention might be necessary. These recommendations were in line with the desires of the owners, who were all the time using every diplomatic means to have the status of Spitsbergen and the rights of United States citizens there fairly and safely settled.

A New Swedish Claimant. Up to this time Norwegians had been practically the only trespassers on the American's territory, but adventurers of other nationalities were on hand to grab the coal-fields. In August, 1912, Karl Meyer, who called himself an administrative director, laid claim to a tract of land, "located north of Advent Bay and extending seven kilometers in a northerly and seven and a half kilometers in an easterly direction from a marked point on the coast-line directly south of the deepest cut in the Advent mountains,

approximately due north of the Arctic Coal Company's dock, and on the west side joining the land annexed by the English Spitsbergen Coal and Trading Company, but abandoned some five years previously."

The witnesses were two Swedish citizens who had been spending the Summer in Spitsbergen on a geological expedition sent out by the University of Upsala."

This Meyer stated that he had also "taken possession of a hunting-lodge abandoned more than five years previously and located east of this tract." He claimed to have prospected on this territory and "discovered three layers of excellent coal, one above the other, that it will pay to mine." He announced the annexation which had been made by him personally and on his own account was to be transferred to the Nordisk Kulgrubekompagni, which was organizing.

Russians Take a Hand. Turner had also reported the presence during the Summer of a Russian ship with a considerable number of persons who were evidently prospecting on the Arctic Coal Company's territory. They were the forerunners of a strangely elusive company of trespassers which without doing any damage caused considerable annoyance for several summers.

Germany also, as may be readily surmised, was not backward in realizing the possible importance of Spitsbergen. Many Germans came up on the tourist-steamers, or in "scientific expeditions," and cast greedy eyes on the apparent prosperity of the American Company at Advent Bay. The splendidly-illustrated account of the Zeppelin expedition and various other alluring accounts of the wonders of the archipelago brought more and more supposed "scientists" to explore, of course from purely altruistic motives, and the German government, not to be outdone by the Norwegian government in the matter of wireless communication, sent up Professor Hergesell of Strasburg and Professor Markuse of Berlin to establish a station at Cross Bay.

British Interests. By this time there were several British companies tentatively working claims on various parts

of Spitsbergen, and waiting to see whether Great Britain was going to give them adequate protection before they developed their interests. They were more cautious than the pioneer English company had been. One of these new enterprises was conducted by the Scottish Spitsbergen Syndicate. This company had been organized in 1909, taking over by purchase several claims made by Dr. Bruce during expeditions in the years 1898, 1899, 1905 and 1907 and by J. Victor Burns Murdoch in 1907. The company had chartered a steamer and sent it to Spitsbergen with two mining-engineers, several prospecting geologists, surveyors, and naturalists, who conducted extensive investigations about coal-measures, gypsum, oil-shales, and other natural products, and several rather extensive tracts were visited and "annexed" in the name of the syndicate by Dr. Bruce, the leader of the expedition. Two houses were built, and two boats and other possessions were left there. Another expedition was planned for the Summer of 1912, especially to make plans for the breeding of fur-bearing animals and the regulation of hunting on their territory. Another British Company was proposing to lease some of the Scottish syndicate's land for the purpose of establishing a hotel to accommodate the increasing tourist-traffic. It was thought that if the British government would or could reassert the annexation of Spitsbergen, which it was claimed had taken place in 1615, there would be a good deal of English capital attracted to that region.

Thus, more than ever, Spitsbergen was becoming the football of the nations. Mr. Longyear himself was half-inclined to take up as a serious proposition what had been often jestingly suggested—that the Arctic Coal Company, which had greater interests on Spitsbergen than all the other claimants combined, should take formal possession, institute a government of their own and ask the United States for a Protectorate. He also thought that the English companies might join in such a project, and secure a joint Protectorate under Great Britain and the United States.

This was before the day of Mandates!

XII. THE EPIC OF THE KWASIND

1. REBUILDING A WRECK

THROUGHOUT the Summer of 1912 Turner had expected and dreaded the arrival of the big 4000-ton steamship *Kwasind*. She was the occasion of many cable-messages; the Company was implored to keep her employed anywhere except in carrying coal from Advent Bay to Norway. If she came every effort would be put forth to make use of her; but with strikes and broken-down cranes and a bay full of ice and insufficient depth of water at the dock and chartered ships which it was difficult to load owing to lack of men, the possibility of her coming was like a nightmare.

THE TURRET BELL. "At the time of its purchase by Ayer and Longyear," says Mr. Longyear, "the *Turret Bell* was a wreck, lying on a mud-flat near Quebec. After having it examined by expert naval architects, and having the probable cost of repairs estimated, the ship seemed to present the best vessel in sight for their purpose and it was purchased.

"The 'turret' form of construction was adopted in England by some ship-builders as it offered some advantages in the matter of taxation. Instead of rising vertically, as usual, the sides of the ship were curved inward and upward to the upper deck which was about twenty feet wide and mostly occupied by the hatches. This curved surface suggested the name 'shoulders,' by which they were designated. These mighty shoulders suggested great strength, and this suggested the name of the strong man of the Chippewa Indian legend, *Kwasind*. Therefore that name was given to the former *Turret Bell*.

"Soon after the ship was docked, and after several plates had been removed, the contractors who were erecting the Quebec Bridge (which had disastrously collapsed a few years

before) hired nearly all the riveters away from the dry-dock company. This left about six riveters to work on the ship where there should have been fifty. The charges per day for the use of the dry-dock were the same as if a full crew had been at work. Other delays served to increase the cost of the repairs until it amounted to several times the estimate."

Delays in Construction. The *Kwasind* was causing even more travail of spirit on the other side of the Atlantic. After it was decided to buy the wrecked *Turret Bell,* the hulk was taken to Quebec for reconstruction. The work proved to be far more time-consuming and expensive than was anticipated. One annoying delay followed another with exasperating regularity. Instead of being ready to send to Norway in June, October found her still in the shipbuilders' hands. Mr. Bentinck-Smith went up to Quebec in the middle of September intending to stay three days, pay all the bills, and see the steamer off. He was there a fortnight, and wrote Mr. Longyear, who happened to be in China at the time, that it was "one of the most trying and unpleasant business experiences" of his life, and he advised any one, particularly ship-owners, to keep clear of Quebec:

"The French Canadian mechanic and his employer are entirely conscienceless," he said. "They are robbers, inefficient, never stick to an understanding or live up to an agreement, and seem to prefer to make you trouble even if there is nothing in it for them."

The workmen were inefficient or maliciously careless, and the facilities were entirely inadequate for work of such magnitude. Bentinck-Smith declared that if he kept on all day dictating the story of his annoying experiences he would not reach an end of them.

The Boat and the Bailiffs. Three times during the last two days of his stay in Quebec the steamer was seized by bailiffs. It had been decided to ship the small, newly bought despatch-boat *Lenore* to Spitsbergen on the *Kwasind* instead of taking the risk of sending her over under her own power. A man had agreed in the presence of two witnesses to hoist

the *Lenore* on board for fifty dollars; but after the job was completed demanded one hundred dollars. When Bentinck-Smith declined to pay it he brought suit against the Arctic Coal Company and had the ship seized. But as the Arctic Coal Company was not the record owner of the *Kwasind* (it was in the name of the secretary personally) the trouble was avoided. The second seizure was instituted by a man whose bill had already been paid and receipted. The third suit was brought by an oil-merchant who refused the discounts agreed upon. "He got drunk early next morning and promptly took legal proceedings—which seems to be the favorite diversion of the French Canadian population. When I met him on the street a little while after, he apologized profusely in his fuddled condition for what he had done. A little later his bookkeeper came along and conceded that the discounts were due us, allowing us a discount that I had not even known of or claimed, so we settled for the reduced amount of the bill instead of the full amount that the man was suing for; but, unfortunately, according to their procedure up there, we had to pay the costs." All these suits were brought by one firm of lawyers, and the secretary thought they were qualifying for the first-rank shyster-lawyer-firm in Quebec.

A Bungling Pilot. While the vessel was still moored outside the dry-dock, a fifty-mile gale did its best to wreck her a second time. Several of the cables parted, but one of the wire-hawsers stood the strain until another cable was got out to make her fast. When she went out under her own power for the purpose of adjusting compasses, the pilot engaged to bring her back to her berth at Levis was so "grotesquely incompetent" that he first bumped her into an old ferry-boat, then collided broadside on with the *Lord Strathcona,* and finally banged dead bow on into the pier which happened to be built of wood and not of stone. Bentinck-Smith was on board, and had difficulty in refraining from kicking the bungler off the bridge.

The Kwasind's First Charter. Under the supposition that her repairs would be completed during the last week in

September, he closed a charter for her to load deals at New Mills in the Bay of Chaleur, and from there to proceed to Brow Head on the coast of Ireland to receive further orders. No specific date was agreed upon, but the charterers naturally expected to have the use of the vessel about the 25th, and Bentinck-Smith wrote that he had received so many letters and telegrams from them and their agents and the ship-brokers that he dreaded to open a letter or a telegram, and finally gave up the attempt to reply. There was a great scarcity of vessels in the market and the rates for freight were high: the *Kwasind* was to receive seventy shillings a standard below deck and forty shillings for the deck-cargo. The charterers were unable to place any insurance on the deck-cargo, and new regulations of the Canadian Board of Trade coming into effect on October 16 forbade vessels carrying deck-loads except under certain restrictions which the *Kwasind* could not meet. If she did not get off within ten days there would be a loss of 6000 shillings.

The Boilers Balk. On October 1 the boilers went wrong and prevented her sailing. The trouble was caused by patches which the French Canadian Government Inspector at the last moment insisted had to be put on the shell in places where it was thin: if the boiler had been left as it was there would have been no trouble but "it was impossible to make the rivet-holes tight, and caulking seemed only to widen them." The only way out was to engage an acetylene welding company to send men to New Mills and weld a strip on the boilers in place of the patches. If that makeshift succeeded, the boilers, it was thought, might last several years. Bentinck-Smith realized that they were running considerable risk in taking the *Lenore*: in case of heavy storms a big wave sousing over the deck would be likely to smash her. He thought the *Lenore* a serviceable-looking craft: "she is strong and stout and able, can be used for trips along the shore, and as a matter of fact will make an admirable little tug-boat to help berth vessels at the dock." He judged that her engines and other appurtenances were all in good condition.

An Incompetent Captain. He thought the *Kwasind* a good-looking ship, and that her quarters were all comfortable. As to the personnel of the crew, there was some doubt. A captain had been sent over from England, but proved to be totally incompetent, apparently "either a silent toper or a dope-fiend." He was paid off and shipped back to Scotland. Dart, who had never before been in command, yet having been a seaman for nearly half a century and employed with the United Fruit Company, was engaged in his place: "He is hale and hearty," explained Bentinck-Smith, "and knows the tramp-business. I believe he will be conscientious and very careful in money-matters. He ought to be a good navigator."

The only criticism that a slight acquaintance justified was that he sometimes seemed "to suffer from a certain indecision," and was inclined to "fuss his officers up." The chief engineer, Millar, promised well, and it was surprising that he had stuck to the ship considering the adverse circumstances under which he had been laboring. The first mate was a character, and "a very conscientious, hard-working fellow . . . very efficient in his job." The firemen seemed like a good gang, though lacking one or two men. The deck-hands, with the exception of the carpenter, who was "a very able, willing fellow," were poor specimens. Indeed, most of the crew of twenty-five were candidates for dismissal when the ship should reach the other side.

The Kwasind Sails. The *Kwasind* started down stream on the evening of October 3, with mechanics still at work on her, patching and mending, so that she might sail from New Mills before the 16th of the month, and take a deck-load besides the nine hundred standards to be stowed in her under-deck. Whether this could be got on board in time depended on the weather. Bentinck-Smith wrote: "If the weather is bad it might take considerably more than a fortnight to load the boat. That was one of the troubles latterly in Quebec,—the weather was atrocious, and the men simply decline to do anything under bad weather-conditions." She had already cost

an extravagant amount of money, but, in case she could get the highest classification, freight-steamers were in such demand that the profits would pay for her in a few years.

A Lingering Voyage. All Bentinck-Smith's unfavorable estimate of Quebec mechanics was more than confirmed by her after-history. She arrived at Preston, England, on Saturday, November 9. Turner, in obedience to cabled instructions was on hand to meet her. She had not made a satisfactory steaming-record across the Atlantic: her log showed less than seven knots an hour, and with a coal-consumption so large that she was compelled to put into Queenstown to fill her bunkers at an extra expense of nearly a thousand dollars. The captain charged the slow passage to the chief engineer's carelessness or incapacity; but it was urged in his defence that the engines had been out of service for a long time. The donkey-engine which ran the winches was useless, as the inspectors permitted only a working-pressure of fifty pounds, and Turner thought that a new boiler might be required. The tubes also in the main boiler were still giving trouble. There were several bent plates in the ship's bottom, and it was evident that extensive additional repairs would have to be made.

Dry-Docked. Turner decided to dry-dock her. The cost of this kind of work and of repairs was at least fifty per cent less on the east coast than on the west coast. In order to make her pay her way around, Turner chartered her to carry a cargo of Welsh coal to Rotterdam.

The Hoodoo Continues. When she docked at Cardiff she collided with two other ships, and their owners both filed claims for damages against the Company. "Later," wrote Turner, "one of the owners arrested the ship and the captain, but I got them both free without any loss of time. We then had a survey made of the damage alleged to have been done to the other vessel, the *Greenwood*."

He felt that they were running an enormous risk in letting her go without insurance against damage which she might cause other vessels or port-fixtures, and he put the matter into the charge of the North of England Protecting and Indemnity

Association, a coöperative society which insured against such risks at a cost of approximately a shilling a year on each registered ton.

A Fine Record. When the *Kwasind* reached Rotterdam, the captain, in describing his cargo forgot to declare the steam-launch, the *Lenore,* lashed on her "shoulder" beside the turret. The regulations of that port required a ship-captain to declare his whole cargo, whether it were to be landed or not. He was subjected to a fine, but this fine was afterwards remitted when the shipping-agents of the Company made proper representations to the authorities.

From Rotterdam the *Kwasind* proceeded to Newcastle-on-Tyne, where Turner knew a "dependable British Corporation man," to see that she got a fair survey. "Docking her and repairing her in Newcastle," wrote Turner, "may be a rather long and expensive operation, but if we can get her in first-class condition and restored to an A1 classification, we shall make money by it in the long run." After she was docked Turner reported that when the outside plating was removed "the condition of her internals was found much worse than was anticipated." He proposed to remain at Newcastle until all the repairs and alterations were completed, even if it should keep him there into December.

Mr. Hynd's Surprise. Mr. Alexander Hynd, who had been in charge of the rebuilding of the ship at Quebec and, in the opinion of Bentinck-Smith, had served his employers faithfully in the most trying circumstances, could not believe that the *Kwasind's* bottom was in such a defective condition as Turner reported it. He wrote the Arctic Coal Company that the repairs made at Quebec, with the exception of a part left incompleted—not fifteen per cent of the whole bottom-repair—were "made in as good and substantial a manner as it is possible for such work to be done, and that if comparison could be made of the workmanship of these repairs and the original workmanship on the bottom-plating it would be much to the disadvantage of the latter, for as was reported at the time "there were more plates which were being taken off the bottom con-

demned and could not be replaced on account of original bad workmanship than on account of the damage by stranding."

Russel, the representative at Quebec of the British Corporation, according to Hynd, had tested the work and pronounced it absolutely tight; the other strictures of the British Corporation seemed also to him most surprising. "I am much disappointed at their attitude," he wrote, "for I do not think that any more thorough job could have been done anywhere under the circumstances so far as the repairs went, but the whole proceeding seems to smack so much of unnecessarily arbitrary action that I believe it is possible to find other ways than to submit to this."

Turner, to whom this letter was sent, replied that Mr. Hynd's statement and claim seemed very strange in view of the condition in which they found the bottom. "The requirements of the British Corporation," he wrote, "are in line with those of any classifying agents here, and do not seem to us unreasonable. In fact, they have let us off much easier than Lloyds or the Board of Trade would have done. Also, all evidence here tends to prove that the work was not properly and substantially done at Quebec. In fact, this latter point is the basis of the whole matter. Most of the work done on the bottom at Quebec is an absolute loss."

Evil Condition of the Ship. Both Hynd and Russel must have been egregiously deceived or culpably neglectful of their duties in supervision. When the agent of the British Corporation first saw the bottom of the *Kwasind* he threw up his hands and exclaimed, "My God! How did she ever get here?" The ribs showed where the plates had been bent between them. The forty new plates put on at Quebec had been bent to fit the curves of the adjoining old ones. Some of the ribs were split, so that strips six feet long hung down when the outside plates were removed; others had been spliced by riveting short pieces of angle-iron transversely to hold them together.

Turner was amazed at the amount of new material that had to be substituted for the old. The plating was bad enough, but new floors and other fittings were required. Mr. Long-

year, concerned that there was little chance of the *Kwasind's* getting cargoes as a tramp-steamer without classification, and that no brokers could be found to engage her nor could satisfactory insurance be obtained, and that she was losing the ten or eleven hundred pounds a month while idle, went over to England and inspected the *Kwasind* in dry dock just after the old bottom had been removed. He realized that it was very fortunate that the British Corporation had insisted on a new bottom, and he authorized thorough repairs, including a new bottom.

Classed as A1. The result was that the *Kwasind* was finally "classed and passed" by the British Corporation. The cost of the work was more than £11,900 sterling. According to the regulations in England, such bills for foreign vessels had to be paid before they were permitted to depart, and Turner did not have on hand sufficient funds to pay the bill; but after he had brought the strongest personal pressure on the directors of the ship-yard, by special favor, payment was arranged to be made in three instalments, the second at the end of two months and the third at the end of four, the amount being covered by assignment of insurance-policies.* She steamed round to Blythe in fine shape, and Turner believed that she was good for a dozen years.

A New Captain and Crew. He had come to the conclusion that the captain was not the man he wanted, so a new captain was engaged, and it was thought that the revised and sifted crew was particularly efficient. But the *Kwasind's* troubles were not even then at an end. On a voyage from Jacobstad to Swansea, carrying a cargo of pit-props, she encountered a terrible gale which carried away two fathoms of props and her anchor-chains. Then at Swansea it was found necessary to discharge her whole crew below the first mate—"as undesirable." There was a strike of stevedores going on at the time,

*A mate on the ship, in an excess of zeal, without orders from any one, repainted the old Plimsoll marks on the sides of the ship, and this for a time promised a lot of trouble, but explanations were made that proved satisfactory. J. M. L.

and that delayed discharging her there. From Swansea she ran to Penarth and took on a cargo of Cardiff coal to deliver in London. From London she went back once more to the Tyne, picked up the little *Lenore,* and proceeded to Grangemouth, where she loaded 2600 tons of coal from Tromsø, a transaction which brought in a fair profit. She was then ready to be consigned to the Arctic Coal Company for service to Spitsbergen, her first cargo North shipped from Trondhjem being 400 tons of bulky and heavy material including the Brownhoist shipment and one hundred standards of lumber, mainly consisting of piles too long for the *Munroe* to handle.

Complications with the Munroe. It had been the custom to tie the *Munroe* up for the Winter. Turner thought it an unnecessary expense to lose her service for eight months, all the time paying the captain, mate, and engineer their regular salaries. He made the experiment of time-chartering her for the Baltic and European trade. The experiment did not work out well. He found himself, as he expressed it, "plunged into a succession of complications, involving the validity of the captain's papers, the desertion of a part of the crew, the placing of a Government loading-mark on her side, questions of register and capacity, and the matter of insurance."

None of the Norwegian Insurance Companies would take the risk on her valuation of 40,000 kroner at a rate less than twenty per cent a year in addition to many restrictions and conditions, all militating against payment in case of loss. No coal-cargoes had been insured during the summer of 1912 and no accidents had occurred. This had effected a saving of 1100 kroner. Turner thought the risk for further use might well be borne by the Company, so he let her sail without insurance, as her first charter called for immediate delivery at Bergen to carry a cargo of herring to Riga, and a cargo of corn from Riga to Rotterdam. The vessel was in excellent condition, was well-manned and under capable management.

Tied Up for the Winter. Unfortunately the man who chartered her proved to be "an undesirable customer." Turner took her away from him, and, finding too many objections

to a general time-charter, he tied her up for the Winter at Tromsø. He also came to the conclusion that it was just as well that she had not been leased to any hunting-party in the past, for she was too useful for their own service in rounding up miners in Norwegian ports, carrying supplies to Advent Bay and bringing back cargoes of coal.

2. THE PROBLEM OF THE SHIPS

A large part of the winter was thus spent in settling the problem of the two steamships. The *Kwasind* had been acquired by Ayer and Longyear, who formed a new corporation called the Arctic Steamship Company, the purpose of which was to use that big steamer for breaking the rates of the Norwegian Insurance Companies, which were always extremely onerous both as regarded time-limits and percentage. How far this would be successful the careful book-keeping established by Turner under the trained control of Bryan would show.

There was considerable likelihood of the Arctic Coal Company's being compelled for self-protection to take over the contract for carrying the mail on the route established against the wishes of the Company between Norway and Green Harbor. In 1912 the Norwegian Government paid a gasolene smack 2400 kroner to make five trips; the contract, according to Turner, "was the direct result of pressure brought on the department at Kristiania by Hjorth and Anker, these men claiming that it was necessary for the protection and success of the squatter claims on Ayer and Longyear's land at Green Harbor, that the Government should subsidize them in some way, in order that these trespassers might get mail, men, and supplies at cheap rates.

The Post Office's Contract. Of course it was outside of post-office business to carry freight and passengers, yet at the demand of Hjorth and Anker the Post Office inserted a clause in their mail-contract to the effect that freight and passengers must be carried on this line. The Department advertised for "tenders," and on the last day of March Turner was

constrained to put in a bid for fear a group of undesirable speculators might get the contract and flood Longyear City with liquor, and land dangerous characters. As no price for carrying was stipulated for such service, Turner proposed to make the rates prohibitive, and he saw other loopholes in the contract which might easily let them out from doing any business for the trespassers.

An Advent Bay Station Proposed. But as there was no likelihood of the contract's being awarded to them a second season, Turner strongly urged that pressure should be brought on the Post Office Department at Washington to establish a regular station at Advent Bay, with a five-cent stamp and the attachment to all first-class mail of a three-cent-due stamp for all service from Norway to Longyear City. The Company would guarantee a cancellation of 10,000 five-cent stamps, and agree to transport this mail for a nominal sum of a dollar a year, and to establish and maintain a post-office at Longyear City for a percentage of the cancellation.

Turner's Argument. "This whole thing," wrote Turner to Mr. Longyear, "can be worked up in accordance with the regular forms for the establishment and maintenance of United States postal-routes, and would be positively the finest thing that could happen to us at Advent Bay. If the Government officials at Washington take the stand that such a procedure is in violation of the international laws of neutrality governing Spitsbergen, then that is exactly what we want to know, and we want such an opinion in writing, and will present it to the various Governments of Europe, protesting against the establishment of a regular Norwegian post office and postmaster at Green Harbor. If this thing will work for Norway, it ought to work for the United States of America. Our book-keeper, G. W. Bryan, would be a good man for the job of postmaster. In addition to the first-class mail, there is a large business in other classes of mail and the Post Office Department might make a nice little piece of money out of it."

Mail for Hjorth and Anker. It seemed fair to take any measures to prevent the Norwegians from getting control

of this business, for they had stooped to all sorts of petty and even iniquitous transactions. As the boat used on the regular mail-route the preceding Summer was small and had much difficulty in getting to Spitsbergen, the Company's vessels had carried the Green Harbor mail throughout the season, merely eliminating such as was directed to Hjorth and Anker. "On one occasion," said Turner in his letter to Mr. Longyear, "the postmaster slipped two sacks of sealed mail for Anker and Hjorth on our time-chartered steamer *Alma,* getting it past Saether, and then telegraphed to Anker's men at Green Harbor that this mail was on board, whereupon Anker met the *Alma* in Green Harbor and took these two sacks from the captain. This bit of smartness has been a standing joke in Norway ever since, and my only redress in the matter when it came to my knowledge was to call down Saether for his carelessness, and refuse to pay the captain or crew any gratuities at the end of the season, and to refuse to charter this ship this year, though she has been repeatedly offered us by the owners. Other dodges worked by the postmaster here [at Tromsø] in aid of Anker and Hjorth were the inclusion of Anker and Hjorth mail in sacks marked for the telegraph-station force at Green Harbor, when his understanding with us was that only unsealed parcels, subject to our inspection, were to be allowed."

Turner thought this might be an effective method of putting an end to the annoyances of the trespassers.

3. FORCE AGAINST FORCE

Indications pointed to the possible necessity of using force to meet force at Green Harbor. Rumors reached the Americans that it might come to this during the Summer. Various plans were discussed for meeting such a difficulty, should it arise. One was to engage and fit out a small vessel in England with a force of twenty or more "huskies" under capable leadership, employed as laborers but ready on occasion to furnish protection for the American interests. No assistance was to be expected from the Norwegian employees of the Arctic Coal

Company and of Ayer and Longyear, for their sympathies would probably be with the Norwegian trespassers. The relative desirability of English or Americans as a police constabulary was discussed.

Forceful Measures Possible. Mr. Longyear wrote that if any trespassers should appear on the territory between the river at the head of Coles Bay and Advent Bay, Turner or his representative might order them from the property, and if they did not leave, he might eject them by force. "Should such action result in a retaliation by the trespassers at Green Harbor," he added, "driving us from that property, the situation will be entirely satisfactory to us." One would have thought that the seventeenth century War of the Interlopers had been renewed! Fortunately, the anticipated show-down was averted. Turner was not compelled to import his merry chorus of bouncers from England. He was glad of it, for, as he said, he never had any luck with English employees. Man for man, they had given more trouble than the Scandinavians. Both Saether and Gilson advised against it, for it was quite certain that the Scandinavians would be incensed at the plan of such supervision, and unless there was a very strong body of police constant friction would ensue. He suggested as a compromise plan to have a little larger staff on the island than was actually required for operation, and rely on some specially designated members of such staff to enforce order. The prospects of the Summer were that they would have an unusually small staff in proportion to the number of the operatives, and Turner keenly felt the need of having a nucleus of force to call on for "rough work" of that kind.

Feeling Against the English. How strong the feeling against the English was among the Scandinavian employees is shown by a wireless which Turner received about that time. When he left Spitsbergen the preceding October, he deposited with G. W. Bryan, their accountant and expert wireless-operator, a private code-book to use for private communications with the Tromsø office, but only in case of great necessity, when a critical stiuation presented itself, the existence

of which ought to be known to Turner. About May 1 Bryan telegraphed:

"Advise you strongly to come the moment you are able. Ice Fjord was open, now covered new ice. Should be able to break to Advent Bay. Judging from indications it is my opinion that production falls next month. A report has been circulated to the effect men intend to work as little as possible after allowing for board. A strong feeling against English."

Another and independent testimony as to conditions among the employees wintering in Advent City is found in a private letter written by George Conant, an American electrician who had come up to Spitsbergen on the *Munroe's* last trip. It was too late for him to see much of the landscape, as the sun had reached its twilight stage, and even then the mercury was 24° below zero. He landed in the dark, having, as he said, "eaten nothing for five days on that damnable trip." Bryan, who showed him around a bit, advised him not to assume his position during the Winter, for there would not be much for him to do until Spring when his duties "would expand." He came to the conclusion that Bryan was wise in this advice, for "the whole English outfit" would have been down on him, as, he remarked, they were down on Scott Turner: "they can not say anything too bad about him."

Conant's Account. He described the foreman's mess in which were four Englishmen, one German, and one Norwegian: "Some of them," he said, "are most bitter against all Americans and all of us shouting for our own country, and the international boasting is something remarkable. It looked at first," he added, "as if it would be a very hard row for me, being the only American and seeing the feeling . . . As soon as they felt at ease they started to rub it into me and the Company, but I held my end of it and pulled through with a reputation of—as they say—a 'bloody good scrapper.'"

At first he was disappointed at having little to do, and he realized his handicap in not arriving earlier in the season; but it seemed to work out well, for he thought it would have been a hard position, as the Englishmen—the superintendent,

the foreman, the chief-mechanic and the head of the power-house—were "a very jealous lot," and would have given him no aid—not because he was at odds with any of them, but simply because he was an American. As it was, he helped on the boilers and in small electrical jobs without letting on that he had a three years' contract with Turner, and he treated the head of the power-house and machine-shop as if the latter were boss: that pleased him and his associates.

Bad Boilers. "In December," he wrote, "both boilers started to leak badly, and we had much work upon them. The threads in the boiler-heads which the screw-tubes screw into were eaten into by the salt they used last Summer, and the continual straining of the boilers from the fact that they were never intended for the pressure of the engines—one hundred and fifty pounds. They gave us much trouble; in fact one boiler has nearly all its tubes filled with stay-tubes made of pipe as large as would go in, thus cutting down its capacity greatly. They are still leaking some and quite some too! The pressure had to be cut down in order to use them at all with the result that we have had poor power in the mine ever since.*

Fire at the Mine. "Then came the fire on January 29 in the dark season: absolutely no daylight; thermometer about 25° below and fierce wind. In fact, after the fire we could not go to the power-house at all—could not get there. We thought we had lost two men who thought they could do it.

"I think with the conditions as they were that we made remarkable time in getting the thing started again. For light, we had candles with three or four parafine lamps, and bon-fires outside.

"The fire we had to fight with snow. Of course we have no water, and, strange as it may seem, the snow is so dry it will burn. We could make no impression on the fire, so of course it had to burn, but the walls are of concrete; so they stood luckily. Altogether we have had a tough Winter, though they say the weather has been milder than usual."

*These boilers were built in Norway, and were never good for much. The Norwegian makers refused to do anything to remedy their defective work.—J. M. L.

A "Bum Place." He thought the general manager and superintendent were very sensible to spend their Winter in Norway and elsewhere: "for this is one bum place. The mercury from October 1 till April 1 is from twenty to forty Centigrade below zero, and winds that you certainly could not imagine, with blizzards of very fine snow that it is impossible to see at all. You sit in your room at night with your feet in fur shoes and upon a chair or stool made of an old box, for the floors are like ice. On the floor back of my bed last Winter there lay a pile of snow for two weeks that had blown in through the joints in one of the storms. I left it there to see how long it would stay without melting, but in two weeks dug it out and there was over a half-bushel. Last year a man was four hours going from the power-station to the staff-house—a third of a mile. This year we have had two lost men but found them. One works on the dock, and the wind came up and snow after he had gone to work after dinner. He was one half-hour overdue, and eight men went in search of him but found him on the way all right. I had my lesson, too, in coming up two days after the fire. Four of us had to crawl on our hands and knees for one-hundred yards up a grade. When I got home my face, nose, and chin were frost-bitten, you would say frozen; but we call a skin-freeze a frost-bite; when the flesh is frozen we say frozen. I have had some part of my face frost-bitten all the time . . .

Monotony of Fare. "There has been all kinds of kicking here on the food, and while at times the food has been rank, I have done pretty well with it. I did not come here to a basket-picnic, nor do I expect to get the same as at home, but there has been no variety at all, and milk, of course, has been all tinned. We have had at time at the foreman's mess cows' milk, but two cows to supply the staff-house and the sick ones do not have much to spare. Reindeer have been scarce, also reaper [ryper]-geese have just come, but as yet we have had none; ducks have not come. The Englishmen say I have a cast-iron stomach for food that they say is not fit to eat and won't eat it; I get along pretty well with it."

MANY HANDICAPS. He described the handicaps which he thought were many and insuperable. Never was there a job which went smoothly: there were obstacles in the way of everything. The engineer, whom he called a "clever steam-man and a good mechanic and the squarest of the bunch," had only one "obstacle," and Conant says he talked about it for a week. The cold and the darkness were as annoying as any:

"In the pit itself it makes but little difference, but on the outside you can easily see the handicap. October 16 the sun for the last time above the horizon at midday; April 19 the first midnight sun, and on August 23 the last. Then the cold. The best and simplest illustration of the handicap is a man repairing a sled-shaft in the dark under an electric light, thirty-two candle-power outside the power-house (we have no shop except the box of a machine-shop twenty feet by ten), driving a four-inch spike where a two-inch one would be right; but he had to use a four-inch so the head would stand up above his big mittens in order to hit it with his hammer: and so it is all through. There should be a shop large enough to take all of that work in. In the machine-shop we have to wear mittens in order to handle the tools and machines and steel or iron, for they are like ice.

"Of course, the greatest handicap is the ever-changing personnel of the outfit. On the first two boats will go down the winter crew almost to a man, and not over ten per cent will be here next Winter. On the first two boats coming up will come the summer crew, and they say the same thing of them. Of course we have to keep the gang here in order to have them for the daylight when it comes, for there is much to do in getting everything in shape so that the summer crew can get to work at once. Besides the coal to be shipped, there is the construction-work, and only four months to do it in. We work Sundays as well."

OBVIOUS CRITICISMS. He pointed out that the wastage in beef and other perishable food-stuffs was about forty per cent owing to the necessity of keeping it in one of the ware-houses where there was great variation of temperature: "If we had

a properly-constructed storage filled with ice on the top in the Winter, I think the ice would last until the next Winter, thereby not allowing the temperature to go above freezing. This building, used for all perishable food, should of course be fire-proof, located out of line and away from the other buildings, and with no heat in it, or stove rather, thereby cutting the danger of fire to an improbability. As it is now, some is in the stable, some in warehouse Number Three, some in bunkhouse Number Five, and some in bunkhouse Number Seven. All have stoves. Number One and Two warehouses have no fires in them, and have some supplies. Should Number Three warehouse, which has two fires, burn in October or November, or even later, you may guess where we should be. "While the bunkhouses, some of which have four or five stoves, are taken care of, for the most part by janitors, everybody has a hand in them; you may go in and see clothes hanging all around a stove that is red-hot, and a very sharp wind blowing. You see some, in fact many, do their own washing, and the drying at the stove. We have no laundry with arrangements made so that everybody would have the washing done for them, and it would result in some of the men being cleaner and the camp more healthful."

Lack of Amusements. He followed these strictures with the remark that at first he proposed to communicate them to Mr. Turner, but having heard that he was not a man who cared for new suggestions he should refrain, yet, he said, "he was certain that any one staying through the Winter could offer many valuable recommendations which would be beneficial to the camp as well as to the Company. Lack of amusements was, in his mind, a great draw-back. If he had been acquainted with the educational solutions of Professor Stephen Leacock, he might for his own delectation have taken up the practice of astronomy: Mr. Leacock, outlining a Manual of Instruction in his "Literary Lapses," says: "Astronomy is intensely interesting; it should be done at night, in a high tower in Spitsbergen. This is to avoid the astronomy being interrupted."

Mr. Longyear's Comment. Mr. Longyear's comment on

STAFF-HOUSE, TROMSØ

ARCTIC COAL COMPANY'S STORE. FORMERLY THE TOURIST HOTEL

Conant's "irreconcilable" letter indicated that he considered the man as an excellent example of a "round peg in a square hole." He remarked: "He apparently did not appreciate that he was in an exploring camp which had been built so far under the most difficult conditions. He apparently looked for most of the conveniences of a civilized community. It was just as well that he refrained from troubling Turner with his suggestions, for Turner already knew of them and many other needs of the camp, which would be supplied as soon as possible after it was ascertained that there was a mine to warrant them."

4. THE SCHRÖDER-STRANZ EXPEDITION

Toward the latter part of the Winter a bit of excitement was caused at Longyear City by the arrival of members of the German Scietific Expedition, which, under the direction of Lieutenant Hans Schröder-Stranz had, in the later summer of 1912 before, gone to Northeast Land, not with the intention of making a dash for the Pole, but to make a study of the ocean-currents in that little-known region. These Germans had been left behind by their motor-cutter, and, after almost superhuman exertions and great sufferings, had crossed the Island and, reaching Longyear City, demanded hospitality. As their stay led to various complications, their adventure connects itself with the story of the mine, and deserves some fulness of relation. It is given in full by Dr. Hermann Rüdiger, the oceanographer of the company, who was one of those that were saved when they came to grief.

Lieutenant Schröder-Stranz bought at Tromsø a sixty-ton cutter named *Sterling,* and rechristened her *Herzog Ernst* in honor of the Duke of Sachsen-Altenburg, who made what the Germans term a *Studienreise*—a research-voyage—in the Spitsbergen waters in his yacht *Senta,* and was the patron of the expedition. This little craft, carrying a remarkable personnel of sixty passengers, many of them men of high scientific attainments, together with all their luggage and two dozen dogs, started North too late for accomplishing their purpose in the Summer of 1912. They passed Bear Island on August

1 and had an unusually clear view of the inhospitable, harborless coast, as it lay in melancholy aloofness, beaten by the heavy seas of the icy ocean and holding its treasures of coal and metals "like a churlish miser."

Out of Provisions. Owing to the impassible barrier of the ice south of Spitsbergen, they found it impossible to go as they had hoped to the east of the islands, and they had to make a wearisome wide détour to reach Magdalena Sound. A little less than a kilometer from the east end of Adam's Glacier they encountered the *Viktoria Luisa,* Germany's biggest pleasure-steamer, by whose officers and passengers they were hospitably received in spite of their rough clothing, their heavy boots, and dirty faces and hands, scratched and torn by unwonted work. By extraordinary lack of foresight they had run out of provisions, and had to obtain supplies from the tourist ship. They had the "splendid local map prepared from the observations of the Prince of Monaco," and for a time all went well. They were overcome by the magic of the Spitsbergen landscape,—"the rugged rocks standing high or splintered into a thousand fragments, but with only occasional glaciers on the Dane and Amsterdam Islands, or in another direction tremendous glacier-formations, "on which the enraptured eyes sees snow tinged with a shining red, caused by a sort of alga (*sphaerella*) which grows there and produces that glimmer.

Deep-Sea Soundings. They sailed up as far as 86° 26″ north latitude and made soundings of a depth of fifty-eight fathoms over the "continental shelf," bringing up small pebbles, quartzite, chert, and clay reft away from the land by waves, wind, and ice, and commingled with all kinds of star-fishes, corals, mussels, algae, snails, and worms, showing how prolific marine life was in those dark profundities.

Moving Pictures. Little appreciating the dangers they were facing, they took moving-pictures "under a cloudless sky, the broad white surface of the ice broken by countless open spaces, the mirror-like water of which looked jet-black, and, all about, larger and smaller blocks of glacier-ice, miniature

icebergs glittering blue, and, as a background, the dark mountains of the coast from Shoal Point to the North Cape and from the north to the Seven Islands, while over the mountains like a white veil of mist lay the gently-swelling levels of the inland ice."

An Arctic Mirage. The *Herzog Ernst* became entangled in the ice-drift and was got to a place of comparative safety only with the greatest difficulty. Some of the men went ashore and killed a big polar bear and a walrus. Near Low Island, which was "a perfect magazine of drift-wood in successive piles," they witnessed a remarkable mirage: "To the south and east the mountains of the coast seemed to rise immediately from the level surface of the island, for the sea between was not visible; in the north-west the Seven Islands took on peculiar forms, at first quite inexplicable to us, though we soon recognized that we were witnessing one of those optical illusions caused by the clearness of the Arctic atmosphere. We saw the islands doubled and reversed, the upper ones standing upside down, so that the mountains in the centers of them were point to point but widely separated and made strange forms like columns and altars."

They put in at Cove Comfortless, where in 1827 Captain Parry made his futile dash for the North Pole, and where in 1899 and 1900 the Swedish Scientific Expedition, under the direction of E. Jäderin, established its station.

Condition of the Swedish Station. The dwelling-house, sheds, and observatory of the Swedes were still standing, protected by Point Grozier, a little quartzite hill running out into the bay. They found it stately in appearance, but inside devasted by vandal fishermen or hunters: the windows and window-frames smashed, locks broken, the furniture ruined; the visitors' book was torn—every blank leaf gone; even Parry's flagstaff with its inscription had not been spared. Dr. Rüdiger attributed such needless destruction to the search for hidden treasures or for alcoholic liquors, or above all to pure destructiveness and malicious mischief—"a barbaric outbreak in a land without masters and without laws."

The ice, driven by a northwest wind, crowded down upon them, and they had to make all haste to escape. They could not re-embark the dogs which had been let out on the land.

Dr. Rüdiger published a book relating the story of their experiences. He tells of their long imprisonment, their attempts to escape, the loss of eight of their number, and of their final march across the inland ice to Ice Fjord.

Arrival at Longyear City. On May 15 they reached the entrance of De Geer Valley, which slopes gradually toward the south. "The water-shed between De Geer Valley and Advent Valley is only about 150 meters high. We easily surmounted the ridge and slid down the wonderful, long-stretching valley to the upper hunting hut of the Arctic Coal Company. In the hut were all sorts of provisions and utensils and the first indications of approaching civilization—empty beer bottles with the inscription, "Bayrisk Øl." The hut itself was small, with three bunks, one above the other, fireplace, table, and chairs set out: it had as a tiny Vorraum, a horse-stall, and outside a two-wheeled cart. . . .

"So in the early morning of May 16 we started on our three-hour journey to Advent Bay. One sledge always went more swiftly than the other; mine was drawn by four dogs, escorted by the three Lapps. Before Longyear Valley we made a halt. Dr. Böckmann went ahead to announce our arrival to the little mining-settlement. Soon came a great sledge drawn by a horse. Our packs were loaded on it and my Schlafwagen attached behind. At twelve o'clock Rave and I made our entrance into Longyear City.

Munroe-fever Again. "The little mining-settlement, Longyear City, at Advent Bay, was affected during the days and weeks of our stay by a peculiar fever. 'Munroe-fever,' as it is called, is the yearning expectation of the arrival of the first steamer so named. Here also we discovered the same phenomenon as we had observed in ourselves: the yearning for home is not strongest during the winter night, but rather in the transition-time between Winter and Summer. That it would show itself so violently we would not have believed pos-

sible. For the majority of the laborers—two hundred had wintered there; among them six women and two children—knocked off work toward the end of May, so as to have nothing to do but wait impatiently for the coming of the steamer.

"Dr. Böckmann, Rave, and I—the other members of the help-expedition had gone on the 17th of May to Green Harbor—were housed in the highest up of the twenty houses in Longyear Valley. Just before our arrival three rooms in it had been made ready and they were working on the others: the house has four apartments, each for a family. Now Rave and I had a room to ourselves, and Dr. Böckmann had another, the third we used as a sitting-room in common. A young semi-invalid miner from Tromsø looked out for us.

Rüdiger's Account of the Mine. "Before our door was the steep mountain-slope with the aërial tram which the miners use for getting up to the coal-mine. The coal is sent down directly to the landing-stage on the bay in rocking baskets to be loaded on board the ships. The coal from the Tertiary period, is of superior excellence as we can bear witness. It has been used with good success on some of the Norwegian State railways.

"Two circumstances above all are an obstacle to Spitsbergen mining-operations. One is the difficulty of getting it delivered: the coal-steamers have scarcely four months to land and to load. At the beginning of October, 1912, the last steamer had already left Advent Bay, and at the end of May, 1913, the Bay was still covered with a thick coating of ice. Moreover the Winter of 1912-3 had been especially unfavorable, and the Summer of 1913 also promised to be unusually late, so that this difficulty must always be taken into consideration and also the additional possibility that even during the summer months when travel by ships is feasible it may always be hampered by vary ice-conditions.

Treatment of Labor. "The second difficulty is that the management of the business rests in the hands of Americans, while the greater number and for this particular business the better-fitted laborers are Norwegians. This is in my opinion a

decided disadvantage, since the labor-question is quite unique in the peculiar shut-in Arctic conditions. If, for example, a man does not work, he must in spite of the undertaker be provided till the next Summer with dwelling, clothing and food, for he cannot leave Spitsbergen. Even in the matter of administration there are also a number of problems which render the profitable outcome of such a business extremely dubious."

As they were made quite welcome and hospitably treated they enjoyed their visit, especially as they had various German countrymen with whom to associate, and others from the wireless station at Green Harbor, who told them that a few weeks before, the first child ever born on Spitzbergen had arrived.

Instead of waiting till the coming of the *Munroe* they accepted an invitation to return to Europe on the ship of the d-i rector of the Northern Exploration Company, Mansfield, which sailed from Green Harbor just before the drift-ice cut off communications.

Repudiation of the Debt. This party of Germans had drawn supplies from the Superintendent on credit, and by April 9 their debt amounted to 4300 kroner, and 600 more for medical expenses. Schröder-Stranz sent a wireless message to Captain Ritscher, a member of the refugee-party at Longyear City, guaranteeing 3500 kroner; but, later, when Turner discovered that the debt contracted amounted to 6000 kroner, and demanded a settlement of the account, Schröder-Stranz repudiated all personal responsibility, asserting that the matter had been entrusted to the German Committee of the "Hilfe für deutsche Forscher im Polareis."

This Committee refused to pay. The Deutsche Arctische Forschung Society had in the meantime been collecting funds through their Captain Berg for the unlucky members of the expedition, but, as the committee had separated from the parent-society, it refused to honor Schröder-Stranz's demand. He, on the other hand, claimed that he had signed his name, not in his personal capacity but as merely the head of the exploring expedition which had come to grief. He wrote the Arctic Coal Company:

"I reckoned also that that was already collected and that more was to be expected after the committee, Hilfe für deutsche Forscher im Polareis separated from the 'Deutsche Forschung' took all the money and income, and now makes difficulties as to its obligations. I do not feel at all obliged to pay these 6000 kroner, and am not able to, either. More has surely come in by this collection than can be used, and the collection is, as the name shows, for that kind of expense."

A Worthless Guarantee. Turner immediately sent a wireless to the Arctic Coal Company at Spitsbergen declaring that Schröder-Stranz's guarantee was worthless, and ordering the Superintendent to refuse further advances of supplies without good and sufficient security. The Superintendent made no reply to this order, but went on allowing the Germans to take what they wanted.

Turner also wrote a stern letter to Schröder-Stranz, expressing his surprise that he should have repudiated his guarantee. "This Company," he said, "saw a telegram from you guaranteeing 3500 kroner to be used in giving aid to the unfortunate members of your Arctic expedition. Acting at once upon this personal guarantee, our winter mining-force at Advent Bay furnished medical attendance, food, supplies, men and dogs, and help of every kind. These expenses will later be enumerated in an itemized bill.

"Now that we have done this work and spent this time and money in your behalf, after accepting your guarantee in good faith and without question, you deem it your privilege to repudiate your word in the matter and leave American shareholders, who have no interest in you or your expedition, to pay the bills.

"We have to say that this is a commercial Company engaged in mining and shipping coal. We are business people, and in the habit of operating along strict business lines. Knowing something of your reputation, our winter superintendent accepted your telegraphic word as security. We therefore hold you personally responsible in so far as we have expended money in the relief of your party.

"We know nothing about the 'Hilfe für deutsche Forscher im Polareis' or any other of your committees, and we have had no dealings with them, and if you do not discharge your obligations to this Company, we will take the matter up in the newspapers and law-courts of your country, and get redress and satisfaction in that way.

"We do not think it will look very well in print to see a German gentleman repudiating his guarantee for money concerned in the relief of destitute and suffering German subjects, and the responsibility for the loss incurred being placed on American subjects thousands of miles away."

He ended by threatening to begin proceedings against Schröder-Stranz in diplomatic circles, and to place the matter in the hands of competent German attorneys.

The Company's Norwegian lawyers offered to undertake the case on condition the actual outlays and a commission of five or ten per cent according to difficulties were assured. They thought the expense would be considerable. Turner found out through German lawyers that Schröder-Stranz claimed to have no available funds, though he lived in "an elegant five-room flat furnished with very expensive furniture," and his father had an estate in Stranz in Westphalia worth a million and a half marks, though it was heavily mortgaged.

Turner came to the conclusion that it would be much less expensive to have the matter settled through diplomatic channels, and he wrote the Boston office, asking them to take it up by way of Washington, engaging Mr. Nathaniel Wilson to present the claim to the German Government by the offices of the German Minister. In this way the whole amount might be recovered—not less than fifteen hundred dollars.

A Bull-headed Blunder. Some sympathy might have been felt for the participants of the expedition had it not been so foolishly managed. All their calamities were due to the grossest and most inexcusable ignorance. Everything was done in a "bull-headed way." Even the story that they told was regarded as ridiculous and caused no end of laughter among those who knew its details. The Coal Company sent out a

relief-expedition at the earnest solicitation of their friends, but it failed to find them; some of its members were severely frost-bitten. The Director of the German Scientific Station told Mr. Longyear the next Summer that the Schröeder-Stranz party was better supplied with provisions and had a more complete equipment than the rescuers had. Their report of the deaths and hardships were in reality cases of pure "funk."

Turner's Annoyance. Turner was greatly annoyed at the whole affair and called it "a rotten piece of business-procedure." The superintendent, he said, "knows that we have been repeatedly stung in this same way, but he still persists in arranging these matters directly. Had he referred the business to this office, we could have insisted on the deposit of a suitable amount in bank in Norway, to be paid against our certified bill, and there would have been no trouble whatever about it. He was warned last Fall against this very thing, as our previous experience with his arrangements have invariably resulted in losses to this Company."

In the meantime he was following up the matter by getting in touch with the American Ministers in Kristiania and Berlin and with the Norwegian Minister of Foreign Affairs, and he thought that in the fulness of time he should secure a complete settlement: "all Government affairs of this kind move slowly," he commented.

The Germans, after exhausting their supply of technical delays, demanded an itemized bill. This was sent, and after several months of delay, one item of seven kroner was criticized. Turner told them to deduct it though it was as legitimate a charge as any, and then the bill was paid.

Destitute Hunters. The somewhat similar case of the destitute hunters who had claimed shelter at Longyear City and likewise caused the Company considerable expense, had dragged on until about this time, but at last it was settled after a fashion. The Norwegian Government definitely refused to consider itself accountable for their misfortunes and their bills; but the local furriers who employed the men had been forced to make a settlement out of court: the 120 kroner which

they paid fell far short of reimbursing the Company for the care and treatment of the sufferers; but it was regarded as a moral victory as it furnished a precedent.

Still another of the superintendent's ill-advised methods came to light: Turner had requested him not to make overtime-payments. The books showed that in seven months he had given away nearly 27,000 hours, amounting to more than $3500. This had been a custom in the past, and Turner reckoned it had cost the Company between $15,000 and $20,000. He had never seen such a practice before except on extraordinary occasions, and believed it was quite needless on Spitsbergen.

5. NEW PLANS FOR MINERS

Turner had made up his mind that under no circumstances would he re-engage the winter superintendent, and he felt very anxious for the Boston office to find a substitute as soon as possible. He outlined the chief qualifications for that position:—The man should be "at least forty years old, preferably unmarried, and not a college graduate."

Qualifications for Superintendent. "No man," he wrote, "should be considered who has not already been superintendent of at least two coal-mines employing over three hundred men. He should be offered a good salary on a sliding scale, so that after he once starts in he cannot afford to quit. A substantial increase of salary should be given each year, and possibly a good bonus at the end of the third year. It is preferable that he pay his own living expenses at the mine, but will be given a furnished house, coal, light, etc., free. Experience in coal-mining and handling men are the two main requirements. Spitsbergen is no fit training-school for young men, no matter how energetic and ambitious they may be. We should not experiment with any man on this job who has not been a superintendent for successful operators for at least five years. If he has not had a college training he will have had several years more of actual experience than a college man of the same number of years of age."

Turner's Letter. Also, in a letter to Mr. Longyear, he expatiated on the same matter. He wrote: "The fact that a man is a surveyor, a draughtsman, or a highly-trained technical man will not add to his value on Spitsbergen, as there is nothing going on in the Winter calling for this kind of talent, and we have men enough to do these things. Long experience in handling miners, running a large boarding-house economically, and the ability to listen with patience to complaints, protests, and threats from every workman under him practically every day in the long Winter, are the most important things, if coupled with a thorough practical knowledge of coal-mining."

It chanced that on March 20, 1912, a man named Dalburg, then living in Manila, had applied for a position with the Arctic Coal Company. Dalburg was a graduate of the Pennsylvania State College, and was experienced in coal-mining. Gilson knew him and spoke highly of him. He had the additional advantage of being able to talk Norwegian and Swedish.

Dalburg Engaged. Dalburg was engaged, but Turner did not show great enthusiasm about the appointment. On learning of it and receiving from the Boston office copies of correspondence and testimonials, but before seeing Dalburg, he expressed himself in these rather dubious terms:

"While his record seems to show that he is totally inexperienced as a superintendent, has never been in charge of men, and has been out of touch with mining for several years, he may be able to handle the work all right if he has the entire Summer to catch on. We should imagine, however, that much of an increase in force for the Winter would be unwise if your affairs are to be left entirely in the hands of such an inexperienced man. However, he is sure to be an improvement on the man you have had there before. Neither your Summer nor your Winter superintendents ever were in charge of anything before, and are totally in the dark as to the customary scope and duties of a superintendent's position, and your property has undoubtedly suffered much from just this lack of experience. Dalburg seems to be highly recommended, and if he has the right stuff in him, perhaps he will shape up all

right. We are very glad to get him and will do our best to get him started right."

But, as the old superintendent might take with him the entire force of English assistants, Turner asked to have Dalburg bring with him two good American foremen and pick up in England two machine-runners and at least a dozen English miners. In the same letter he told what pains had been taken in signing on men, but he was still skeptical as to the value of Norwegian miners. Conant, with less experience, had a higher opinion of them. "The Norwegian," he wrote in the same letter from which we have already quoted, "is a queer fellow, easily discouraged if things don't go just right and very timid, but if handled right will do almost anything for you, but he must be encouraged." Turner wrote:

Socialist Workmen. "Every workman in this North country is a Socialist, and sworn to impede the working of capital whenever possible. The miners are most undependable. Another peculiar feature in Scandinavia, and one which has been discussed by all mining-people in this country, is the impossibility of getting good foremen. No workmen develop into foremen, and it is difficult to get a Scandinavian who will drive or hurry another Scandinavian for an English, German, American, or other foreign company. In all the time that your Company has been mining on Spitsbergen, not one shift-boss or foreman has been developed in the mine from among the Scandinavian employees, nor have we ever been able to hire a foreman in this country for the mine."

Mr. Longyear had suggested that it might be possible to find a Norwegian labor-contractor who would send up gangs of miners and work them at the mine on a tonnage-basis. But Turner replied: "No one in Norway or Sweden knows anything about coal-mining, and a contract of this kind would be too big for any of these fellows to tackle."

Chinese Miners. The possibility of importing Chinese labor was also mooted, and Turner offered to write to a friend who was acquainted with such matters and see if it were feasible to deliver gangs of Chinese at Arkhangelsk. He found

out, however, that his friend had gone to the gold-fields of the Lena River in Siberia. But his secretary had turned the inquiry over to an English engineer experienced with Chinese labor which he had employed in Russia. Turner, however, felt certain that Scandinavian laborers would refuse to work with Chinese. This scheme was not considered sufficiently promising to be undertaken at that time. It was also under consideration whether it might not be possible to get labor from the United States or Canada, New Brunswick or from Scotland.

Icy Pessimism. There seemed to be no ready solution of this labor-question, and Turner wrote the Boston office that it would probably continue to be difficult to solve. In the same letter, which was about as icily pessimistic as the winter blasts of Spitsbergen, he said in respect of an assumption on the part of the Company that from the end of 1913 on, the property should be self-supporting, according to his figures, and even earning some profit: "Certainly no such conclusion as this is taken direct from our annual report, and we are not prepared to make any such claim for the property. Likewise, as we have as yet no figures on the actual cost of the different operations at Spitsbergen, we are in no position to give any figures on the estimated cost of producing and shipping 75,000 tons, and cannot at this time answer your question in this regard with any accuracy. Your property is peculiar in that the overhead charges are bound to increase at the same rate as the production, as a certain proportion of reliable men must be kept on the island in order to manage the Scandinavians."

The cost of handling the coal was also increased by the higher prices for freight. Not a single English ship was to be hired for the Spitsbergen service, and time-charters were at almost prohibitive prices everywhere.

XIII. MR. LONGYEAR'S SUMMER VISIT

1. NEW MEN

TURNER had hastened back to Norway as soon as the *Kwasind* was despatched on her commission as a reputable tramp of the seas. He started for Spitsbergen on May 31, 1913, with about one hundred and fifty men on the *Munroe*. A big iron mine at Salangen, which had been employing five hundred men, closed up at the end of 1912, and Gilson went there and, after personal consultation with the manager, engaged a number of excellent miners. As no *forskud* was paid, there was not a case of drunkenness on the ship. She tied up to the fast ice about five miles from Longyear City at half-past nine o'clock on the evening of June 3: within twenty-four hours the cargo, the supplies, and the new men with all their luggage were landed, and one hundred and fifty of the winter force were taken on board and the *Munroe* was headed South again. This was record-celerity. Three of the winter men were ill, and one died on the ship before reaching Tromsø; but as usual the health of the laborers had been excellent. The supplies had lasted through the whole Winter, and Turner reported that there had been no shortage in any department.

A JEREMIAH. Although the coal-production had exceeded his prediction by 646 tons, he was not at all satisfied with the results of the Winter. He had left definite orders with the Superintendent so clear and explicit that it seemed impossible for any mistake to be made; yet they had been deliberately ignored. He wrote on June 14 a most dolorous epistle, worthy of a Jeremiah of coal-mining:

"We found the mine in very bad shape. Most of my instructions of last Fall had not been carried out. The conveyors had been put in a place other than the one ordered,

with the result that the mine has been worked into a pocket, right up against the fault, making it impossible for us to do much in the way of producing coal this Summer. One conveyor had to be stopped and taken out and stored as there was no place for it to work, and the other has only a few weeks' work ahead of it before it also must stop. Curiously enough, in going over your whole mine we are unable to find a single face 300 feet long where we can start the coal-cutters. Our plans for development during the Winter were disregarded, and we have had to set our entire summer force to opening up the mine, driving headings, and moving rock, in order to get a place to work. This is a great pity, as this work should be done in the Winter, and the Summer devoted to mining coal. In five weeks more we hope to have Number 10 North driven ahead to the long-wall face, whereupon we will install the conveyors there as a makeshift, and run them there the rest of the Summer. We therefore figure that we may be able to begin producing coal at a fair rate about August 1st. The main entry has not been advanced a foot. In fact, it stands exactly where it did four years ago, with the face near the fault. You will note that my last Fall's instructions were to drive this ahead 280 feet, and try to locate the coal beyond the fault. Likewise, not a foot in any gate has been driven past the fault, and we are unable to show any coal beyond this point. Mining operations have now exposed this fault over a length of several hundred feet, cutting the coal off sharply. As this leaves the mine in bad shape, I have had to start driving the main heading this Summer, although we can ill afford to use our small mining force on work of this kind.

New Boilers Needed. He confirmed Conant's conclusions regarding the boilers: one had "practically failed in its entirety" and Pacey, the master-mechanic, advised scrapping it unless extensive and expensive repairs were made on it. Extensive and expensive repairs were constantly necessary. The other was in bad shape. The steam-pressure had to be reduced from 150 pounds to 130 pounds, and while all the transformers at the mine were designed for 2200 volts, the

voltage never exceeded 1600. He took the bull by the horns and ordered a new boiler.

Turner took hold with energy to organize the summer force. Although one of the American employees had not been used all Winter, he thought it might be well to keep him, and of another, when it was reported to him that he had been up to the mine only once and had to have the assistance of three men to get him down again, and that for days and weeks he had not been out of his room, Turner wrote that he was "absolutely valueless: He is too old and cannot stand the climate, in addition to which he has not had the experience to fit him for such work and such conditions as are encountered on Spitsbergen."

Dalburg Missing. He was counting on Dalburg and a wholly new organization: "the newer the force and the more complete the organization the better." But when the *Munroe* got back on her second trip on June 14, bringing ninety-three more men, Dalburg was not among the passengers. Turner had not heard a word from him, but reported on the 25th that the island organization was in fairly good shape for the summer, and he hoped to meet Dalburg in Tromsø early in July. The former Superintendent, who by this time had gone back to England with all his effects and paid in full, was very desirous of getting a new contract. "I told him that I would make no such contract," wrote Turner, "but that I would let him know if, after the tour of inspection by my principals this Summer, it should appear that we could make any further use of him. Leaving the matter in this light seemed wisest, as we had to hold some of the winter operatives and English miners over for the Summer, which we could probably not have done had he circulated the definite news that he was not coming back."

A Late Spring. Even at that late day, Advent Bay was blockaded with ice from the Point to the dock, and no shipping of coal could begin. The Spring had been unusually late again, and much snow lay on the ground. Earlier in the season there had been open water, and a steamship which arrived

F. A. DALBUY, WINTER SUPERINTENDENT, 1913-1915

to bring back the German refugees had no difficulty in clearing; just afterwards a vast mass of drift-ice was brought up against the coast by south winds and effectually blocked navigation for weeks. Turner was inclined to import a Norwegian ice-breaking boat for use in the Spring to open a passage to the dock. Advent Bay, he said, was always the last bay on the Spitsbergen to open, and a vessel designed for the purpose could probably with ease break the thirty inches of rotten Winter ice which caused the trouble. Mr. Turner thus relates the story of Dalburg's connection with the mine:

Arrival of Dalburg. "Dalburg arrived at Tromsø on June 25 and went North two days later; he made an excellent impression, and Turner had high hopes of him. He had come direct from the Philippines via the Trans-Siberian Railroad, and had been traveling continuously for more than a month. Except Turner, no one in Norway or Spitsbergen knew he was coming, and after his arrival no one knew in what capacity he would serve. In order to allow Dalburg a chance to make good step by step, and in order that he might be learning the business from all its angles, at the same time that the manager was sizing him up, Dalburg was shipped to Spitsbergen as an ordinary employee, and was first, early in June, 1913, put to work in the mine as a helper to the night-foreman. He made good at this and at each succeeding point, and was rapidly advanced to night-foreman, assistant to the day-foreman, day-foreman, day-foreman of the mine, mine superintendent, and, late in September, he was made winter superintendent. Thus, after six years spent in the tropics among Spanish-speaking people, Dalburg was, within three months, speaking Norwegian and Swedish, in charge of two hundred and fifty men and a busy camp within seven hundred and fifty miles of the Pole—quite a transition! He remained with the company until the end of the American régime, and proved himself a most efficient and reliable man.*"

Dalburg brought no assistant foremen with him, but left

*Subsequently Turner took Dalburg with him on a two-year expedition in South America. J. M. L.

with Turner various memoranda regarding possible candidates, all of whom were graduates of the Pennsylvania State College, and able men. It was planned for whichever were engaged to stop in England and pick good foremen, machine-runners capable of directing the work with the Diamond long-wall machine, the air-drill, and the new Sullivan chain-machine, all of which were electrically operated. Turner thought that, as the English machine-runners at the mine were receiving £4-10-0 a week, together with free transportation, board and lodging, and as in Sheffield all applicants were demanding £6 sterling a week, equivalent to $125 a month, it might be just as economical to bring over American runners.

Bailey's Impressions. The man finally engaged as Dalburg's assistant was James R. Bailey. Bailey, shortly after arriving at Longyear City, wrote a letter to the secretary of the Arctic Coal Company in which he gives some of his personal impressions of the mine and the men in charge. He was favorably impressed. Saether "extended courtesy and kindness" to him. Of Scott Turner he said, "I would say without flattery I do not think the Company could have a more go-ahead man in every respect." Dalburg in his opinion was "the one who should have held the reins out here years ago." They had been around the mine together several times, and he seemed to be the man to bring Longyear City up to a better stand: "his ideas are very far-reaching."

A Hard Proposition. Bailey wrote: "The mine itself has been a hard proposition apart from the men employed as miners. It seems to me that the developments have been very slow with all the difficulties encountered. The fault is a great drawback, but there has not been any prospecting done to try and locate the coal, from what Mr. Dalburg has shown me. He has gone farther in two months in that line than others have gone in the past three years, and it is work that should have been pushed ahead by all means, since the Company has gone to such an enormous outlay. I have never come in contact with a Company before who have shown such grit to have had or must have had such little returns.

"The housing and feeding of the men in your employ up here are fine, which also surprises me considering the developments in the mining have been so slow. The class of men are poor as miners, which also entails a big expense in teaching them, but we must utilize patience, and endeavor to make the best of them and get the best possible results we can."

He ended by wishing the Company every success, and promising to put forth his very best efforts toward making it.

2. IMPROVEMENTS AT LONGYEAR CITY

Mr. Longyear sailed on the *Kronprinzessin Cecilie* of the North-German Lloyd Line on July 5, 1913, and arrived at Hamburg about noon on the 16th. Proceeding from Hamburg by train, he crossed through northern Germany, where the country looked fertile and well-cultivated, with fine heavy crops. In one place he saw a deer nibbling at the edge of an oat-field, pheasants near the track, storks stalking about the fields, and men at work haying.

"At Stralsund," he says in his diary, "the train was ferried across a strait a mile or so wide, and then an hour's run brought us to Sassnitz where we were put on a big car-ferry, open at the rear end, like those on Lake Michigan. On this we had a ride of over four hours to Trelleborg, in Sweden. Dinner was served in a cheerful dining-room on the upper deck, with windows on two sides. After the non-English speaking waiter and I came to an understanding, I got a good meal. He thought I belonged to a party of nine who had ordered a table set for that many, and it took me a long time to get it through my head why other people were being served and no one waited on me. A German came and sat at the same table, and after waiting for a while, began to make a fuss. In the ensuing conversation I understood enough to learn what the trouble was. We were placed at another table and served immediately. The waiter was expecting the remainder of the party of nine to appear before serving any one at that table."

There was a sleeping-car on the train, and when the next

day dawned they had not passed out of Sweden. "Haying," says the diary, "has just begun here, and the country is rough and rocky. It looks much like some parts of the Lake Superior country, the white birches, pines, black alders, willows, etc., all have a familiar and homelike appearance. Some of the crops look well, but they are poor compared with those I saw yesterday."

In Kristiania. He arrived at Kristiania at noon, and went directly from his hotel to the Embassy, had a pleasant chat with Minister Swenson, but from the Sun of Diplomacy there seemed to stream no light on the troubled waters of Spitsbergen, and Mr. Longyear left for Trondhjem in the middle of the afternoon, arriving the next morning. He had twenty-four hours which he spent in making calls renewing old acquaintances, talking with some of the stock-holders of the Company, and visiting the Cathedral in company with his favorite silversmith, Henrik Moller, who showed him the chief points in the reconstruction of the ancient cathedral, especially the beautiful stone-work copied from ancient designs found in the ruins. Since his last visit, automobiles had become one of Trondhjem's favorite institutions, and he rode in one out to the residence of Herre and Frau Bohne in the outskirts of the town, where they had a large garden with much open country around them. Strawberries were just beginning to ripen.

On Finnmarken. He found that the *Kwasind* had sailed for the North only twelve hours before; so, having missed the pleasure of riding on the Company's own steel ship, he embarked on *Finnmarken,* a ship about one hundred and seventy-five feet long, and packed with luggage and freight. On the deck he noticed a Chicago one-horse mowing-machine and a number of American hay-rakes. The passengers were all Norwegians and Germans. The dining-room was in the stern of the vessel, just over the propeller-shaft and, says Mr. Longyear, with a pun which ought to have sunk the craft, "the way that rumbling, bumbling shaft made the dishes dance on the table was curious. The music is often equal to a Wagner overture (over-chewer is an especially appropriate

SOUTH END OF BEAR ISLAND

word to use in this connection, where so many Teutons are assembled)!"

It was foggy and rainy all the way, and the tops of the mountains were veiled from sight. At eight o'clock of the 21st they put into Svolvær, the principal town of the Lofoten Islands, where ten years before he had spent a day with Munroe and Jeldness on their way to examine the iron-ores of the Varanger Fjord. At two o'clock in the morning of the 22d the vessel stopped at Lodigen, where the *Munroe* used to telegraph to Tromsø that she would arrive within a few hours, and ask to have her meat and other provisions for Spitsbergen ready to put aboard. Three hours later the mission church, the most ancient in Scandinavia, could be seen on the shore at Harstad. Its modern red-tiled roof and fresh coat of white-wash made it look rather uninteresting to Mr. Longyear as he looked up at it from his port-hole.

At the New House. At Tromsø he occupied Turner's usual quarters at the new house belonging to the Company, and found it far more homelike and comfortable than the Grand Hotel. It was conducted by Mrs. MacGavin, wife of one of the Company's engineers, and the household consisted of her two children, with the aunt and sister from California, who were visiting her. "The house stands on a knoll, high up on the hill-side back of the museum, and commands a wide view up and down the fjord and of mountains all around."

Mr. Longyear was also much pleased with the new and commodious offices of the Company; but he was disappointed to learn that the *Kwasind* had sailed directly for Spitsbergen. without putting in at Tromsø where he had hoped to find her. The *Kronprinzessin Cecilie,* of the North-German Lloyd Line, with a load of tourists, arrived just about the same time as he did. The *Munroe* was unloading coal at Hammerfest; so to board her there he took passage on the *Erling Jarl.* They left Tromsø at two on the afternoon of the 24th and had a rough trip to Hammerfest:

Surf on a Rocky Shore. "A heavy north-west wind was blowing almost a gale, and heavy seas were running in

through the openings between the islands behind which most of our course lay. The *Erling Jarl* tumbled around like a cork. There is one wide opening where the Arctic Ocean paid us its unobstructed compliments. The seas came at us broadside, and then we did roll. We were in this sea for about four hours, during which we ran into two partly-sheltered bays to discharge passengers. At one of these places, when I saw the seas dash up over the rock-bound shore, I wondered how they would make a landing with row-boats, but I was glad to think that it was not my problem. We did not stop to see how they did it. It was very cold, and the rain struck my face like shot. I found a seat in the smoking-room, on a stationary divan, where I could brace myself behind a table bolted to the floor, which protected me from the loose furniture, mostly chairs, which made endless journeys across the room. There were six light, upholstered chairs and four heavy ones. After a while a steward came in and piled the light ones behind the tables, leaving the heavy ones to their fate. These gathered themselves together as if for mutual protection, and then slid back and forth across the room, bringing up against the sides with a bang. They cavorted mostly in the other end of the room, and only hit my table occasionally and then not very hard."

It was so rough that the supper-call did not sound until half-past ten, and only eight passengers out of thirty or forty responded. The crash of smashing glass and crockery and furniture resounded in various parts of the ship, and it was still blowing and raining when they arrived at Hammerfest three hours later. The captain of the *Munroe* came in the row-boat for Mr. Longyear, who was much pleased with the new arrangement of the cabin with its increased size and the four new staterooms. He was assigned one of them which had four good windows and was well-ventilated.

In Hammerfest Harbor. Several of the Coal Company's vessels were in the harbor waiting for the storm to blow itself out. The little harbor itself had not changed: "The same row of schooners and small steamers tied side by

side all around." Mr. Longyear thought they were probably not the same ships he had seen during his other visits; yet they looked just the same: "Many of them are Russian vessels which come here to trade. Russians are not allowed to fish in Norwegian waters, so they bring cargoes of flour, timber, salt, and other Russian products which the Norwegians want. These they sell and buy fish with the proceeds. When the Russian cargo is disposed of they have a cargo of fish. This is taken to Russia and sold, the proceeds used to buy more flour and the like. These vessels are really peripatetic trading-posts."

They cleared for Spitsbergen about two o'clock the next morning, and were soon overtaken and passed by the other steamer which had been waiting: it proved to be the former *Locksley* now renamed the *Jernland* (Ironland), which had been the first to carry a commercial cargo of coal from Advent Bay, and had been chartered every year since 1909.

Bear Island in Sight. During the morning of July 27 they were passing Bear Island. Mr. Longyear had been up and down by it twelve times before, and only once had seen it in plain light. "This time the fog hung about a thousand feet above the water, concealing the high cliffs at the south end, but the rest of the island was seen fairly well. The cliffs at the south end rise vertically out of the water 1300 feet, and are most imposing and picturesque. They look to be of red and yellow sandstone, weathered and streaked fantastically. They afford nesting-places for millions of water-fowl, mostly guillemots, some small gulls, fulmars, etc. At least nine out of ten birds seem to be guillemots. As we drew near, and while we were within ten miles of the island, flocks of guillemots, probably male birds, began to fly round and round the ship, their numbers constantly increasing until there were thousands of them. Within five miles of the land the water bore thousands of mother-birds, and the old birds made a growling, grunting noise which sounded to me more like animals than birds. The little birds swam close to their mothers, who did not desert the chicks although we almost ran over some of them. Many dived under the bows and came up close by the side of the ship.

Then they would scuttle away as fast as the little ones could go, making frequent short dives, hustling away from us as fast as possible."

The Kwasind at Advent Bay. The *Munroe* arrived at the dock at Advent Bay about half-past twelve, Monday, July 28, joining the *Jernland,* anchored and awaiting her turn to take the place of the *Kwasind* as soon as that huge turret-ship had finished discharging her 1100 tons of freight, taking on her cargo of coal. This freight consisted of cement, flour, hay, potatoes, steel, tools, a locomotive-crane, and other machinery and a horse.

3. AT SPITSBERGEN

Mr. Longyear took up his quarters in the staff-house where the English doctor, Turner, Gilson, Dalburg, Bryan, the all-round accountant, and MacGavin, the engineer engaged in making the explorations and surveys, were in the habit of taking their meals. The first afternoon was spent in climbing over the stock-pile where 30,000 tons of coal were awaiting trasportation to Norway, and in visiting the ware-houses which were "rapidly filling with supplies for next Winter to feed three hundred men, ten horses, two cows." He found one warehouse packed with steel, iron, hardware, electrical supplies, supplies for the power-plant, steam-crane aërial tramway, machine-shops and the like.

An Efficient Organization. Altogether twenty-five or thirty buildings, many of them erected since his last visit, constituted Longyear City, and he foresaw probably a dozen more would have to be put up besides a considerable amount of labor-saving machinery before that one mine was sufficiently provided for the proper prosecution of the business of mining coal. He was much pleased with the efficiency of the organization.

The next morning he made a tour of inspection of the men's bunk-houses, each of which afforded a sleeping-place for either thirty-two or sixty-four, arranged so that four men might have a room to themselves. There were also a number

of houses adapted for families, three rooms to each with separate entrance, and two cosy little houses each with four rooms, bath-room, coal-bin, and the like. At the cook-house all the men were fed at long tables; the range filled the whole side of the big kitchen, two large steel bake-ovens were capable of baking sixty-four loaves of bread at once, and huge pots, like cauldrons, each with its own fire, could boil bushels of vegetables. The foremen had their meals at other houses. At one of them a family boarded some of the men, the supplies being furnished from the store. It was hoped to get all the boarding-business on that basis, as the maintenance of the big-boarding-house (the "Mulligan") was an unspeakable nuisance.

Guests at the Mine. They had as guests for the afternoon an American mining-engineer named Minard with two assistants, Sherer and Barnett, also from the United States, who were engaged in examining the beds of marble at King's Bay for the Mansfield Exploring Company. They all went up to the mine together, where a lot of changes were making for its greater productiveness, after the failure of the winter superintendent to carry out Turner's instructions had left it in bad shape. The frost-crystals made the walls look as if they had been cut through salt or sugar. They examined the solid concrete and steel buildings going up at the mine-entrance on the place where the fire had so nearly communicated itself to the mine. These consisted of a blacksmith-shop, mine-entrance building, an eating-house for the miners, and (although prohibition was always enforced there) a "tipple," all covered with solid roofs "so that the crumbling cliffs which rise above the mine-entrance can all come down without disturbing the mine or the work about the entrance."

The Wireless Station. They went down to the wireless-telegraph station, and at five o'clock, when the Norwegian Government operators at Green Harbor always, by agreement, were ready to deliver messages for Advent Bay, they heard the calls through the receivers. "It seemed a wonderful thing," writes Mr. Longyear, "that we could sit in that little room seven hundred miles from the North Pole, and talk with the

rest of the world through the wires suspended between the two little masts outside with no visible connection with the rest of the universe." The station at Green Harbor could catch messages from the Eiffel Tower in Paris, but was not strong enough to "talk back."

The New Mine. The next day an excursion was made to the explorations on the east side of Longyear Valley, where the new mine was starting at an elevation of about 900 feet above the bay, about 150 feet higher than the old mine. Mr. Longyear thus describes the new venture:

"The foundation for a house is near the opening to the mine, and the material for the building is at the foot of the steep hill, and will be hoisted to the site by block and tackle. A pulley-block will be placed at the top. A line from it or through it will be attached at one end to a sled, the other end being attached to a horse down in the valley; the building-material will be placed on the sled; the horse will be driven along the level ground at the foot of the hill and the sled will go up the hill. It is a dizzy-looking perch, but it will be handy to the mine, and the men will be able to go to their work regardless of the weather.

Million-year-old Ice. "The first attempt to open the coal-vein here had to be abandoned; for, after drifting through twenty-five feet of slide-rock and apparently solid rock, twelve feet of solid ice was found. This was drifted through, and the vein was explored for fifty feet. As soon as the ice was exposed to the air it began to melt and the side-hill to come down into the pit, making a very dangerous condition. A new place was selected for the mine-opening, about a hundred feet from the first. The digging had uncovered ice when we reached the works, but here it seemed to be only a thin seam and not far in from the surface. A hole had been drilled and was being loaded when we arrived. We retired a few feet away while the charge was fired. On returning to the pit we found that the blast had exposed the edge of the coal-seam. There is not ice enough here to do any damage. This ice is probably thousands, perhaps millions of years old. It was impressive

CAMP OF RUSSIAN TRESPASSERS

"FOSSIL ICE" AT OPENING OF MINE NUMBER TWO

to think that the ice exposed by our work is now turning again into water after its long imprisonment.

A Paved Trail. "A very good trail has been made to these workings. It ascends the steep hillside in long zigzags, and then follows the face of the hill at about the level of the coal-seam. In places the entire surface of the hills are covered with slabs of flat-bedded sandstone, and for considerable distances the trail has been made by arranging slabs of two to four feet face more or less horizontally, making very good walking, like a rather rough stone-pavement. I have seen old Roman roads that were no better. In some places the snow and ice were still on the ground when the trail was built, but have since melted. In these places the walking was very rough. We crossed one ravine on ice ten feet thick. The small river flowing under it indicated that it is melting quite rapidly.

"Our afternoon's ramble covered about five and a half miles, not counting the ups and downs. We have pits showing coal over an extent of twelve miles, and the present prospecting covers about six miles. The foreman of this work makes the round trip to each active pit every day, a round of twelve miles, over good rough going. He probably earns his money."

Work of Vandals. The next day, after luncheon, the three men went in the launch across the Bay to the deserted English mining-camp, which was a "scene of almost incredible, wanton destruction. Vandals," continues Mr. Longyear's diary, "have apparently put in days of time just smashing things. Crates of new sash, with the glass in, have been knocked open, and all the glass broken without removing the sash from the crates. Locks have been chopped away from the doors and smashed, apparently to get the little brass parts. Supplies of all kinds have been torn open and spilled on the floors of the houses, or on the ground outside. A big power-house contains two big producer-gas engines and generator-plants partly erected, and a third lies scattered about on the ground outside. Three costly dynamos have been robbed of all their brasses. One of these had never been unpacked, but

the vandals have knocked away enough of the crating to enable them to get at and remove the brass parts; sledges seem to have been used to break the brass off where it did not come off readily. At one place a barrel of molasses had been left on the ground beside a roadway where it had leaked and filled a wagon-wheel rut. In this were about a dozen dead snow-buntings: they had apparently got into it thinking it to be water, and were held by the sticky fluid until they died like flies on sticky fly-paper.

"In erecting these buildings the Company seems to have spent money recklessly, and that before they knew whether they had any good coal or not. Most of the buildings have fine brick-foundations, and the ground is strewn with good sandstone in flat slabs of just the size to be laid up in walls. This brick must have cost several times as much as the stone would. Hardly a whole light of glass is left in the houses; most of them show that they were broken by stones thrown through them. The amount of destruction done in this way would keep an able-bodied man busy for a day or two."

The English Company, which had at first demanded a high price for its property, had finally arranged to let the Arctic Coal Company take anything they might like to use and pay a reasonable price for it. They would have been far wiser had they accepted the American offer earlier. A number of lighters were lying high up on the beach, not having been used for several years: as wood does not decay on Spitsbergen, they seemed in fairly good condition, so that they could be got into the water and into commission.

Locating the Coal-seams. While the others were looking over the wrecked camp, MacGavin climbed to the top of the mountain in order to locate, on that side of the Bay, the same coal-vein as the Company were working. He found it at a height of 1600 feet, more than twice as far above the water as the mine at Longyear City. "The vein worked by the English Company was 450 feet elevation, and on our property the same vein must be several hundred feet below the level of the Bay: If it is no better on our property," is Mr. Longyear's com-

ment, "than where it has been opened, it does not matter, except as a matter of geology, where it is."

Various skeletons of animals, perhaps seals, picked clean by the gulls, were scattered about the camp, but, untouched and uncanny in its lifelikeness, was a dead dog just as he laid himself down to die with his fore-paws crossed: probably his grotesque appearance had scared the birds away.

3. DOMICILIARY VISITS

The following day Mr. Longyear and Scott Turner went on the *Munroe* to honor some of the trespassers with what might perhaps be called domiciliary visits. Their first encounter with conspirators happened at the mouth of a small stream which discharges from the second valley east of Coles Bay, about eight miles from Longyear City. A smack was anchored near the shore, and a number of tents were pitched on each side of the stream. A quantity of lumber had been landed by means of row-boats. A chute constructed of boards and poles led down from a pit opened up seventy-five or one hundred feet distant, and men were engaged in shoveling into it a mixture of coal and shale. Mr. Longyear's account of their visit to this band of twenty or more Russians is very entertaining:

Russian Trespassers. "We landed, taking the mate of the ship, who talks English, Norwegian, and a little German. By inquiring we found a Russian who could speak Norsk, and we asked for the leader of the expedition. A youngish, light-complexioned man soon appeared. He could speak a few words of German and so could Scott. He could also speak a little French and so could I. Then we did most of the talking through the mate and the Russian who could talk Norsk. It was a rather frail thread of communication for an important confab, but we took a good deal of pains in telling the young man that he was a trespasser on the property of the Arctic Coal Company. This, of course, he knew all the time, but we intended to make him understand and we did make him

understand what we said, so that he should not be able to claim ignorance in the future.

"We explained to him that any buildings he might erect on our property or any work he might do on it belonged to the Arctic Coal Company, and that the Company would claim it. He at first affected ignorance of the Company, which was a subterfuge, for he was at Advent Bay last Summer as a tourist, and was allowed to go through the mine. He said he had seen no notices of ours posted along the shore. We told him that they were there and easily seen if he looked for them. I told him, though, that I had no desire to discuss our title with him, and that I had only come to give him formal notice that he was a trespasser on our property, and that any work he did belonged to us; that I was so insistent and had repeated my statement so many times in order to be sure that he understood. He said that he understood, but that he did not think that it was so.

"We then left him and went across the creek to the side where the digging-work was. I kodaked their camp, chute, and incidentally the young man we had talked with. While I was kodaking he had crossed the stream and stood at the foot of the chute. Scott and I then started to go up to the pit, and the young man gave us to understand that we should ask permission to visit his mine. We laughed a little and went on up. We examined the opening they had made, which is apparently on the same seam as our mine is in; but not enough had as yet been done to show clearly which seam it is. The seam here is about five feet thick with a layer of shale about a foot in the center, leaving a two-foot layer of coal on each side of the shale.

Mixed Coal and Shale. "Only a little work has as yet been done, and the solid ledge has not been exposed, although the shattered coal we saw is apparently in place. The steep hill-side just above the pit, and which the pit has undermined, is composed of mud and rock which has been frozen, but is thawing rapidly. It looked to us as if the most likely thing to happen would be the sliding down of the bill and obliterating

of the pit. Then, if they want to keep it open, it will be necessary to dig all the mud and rock of the high, steep slope, as it will keep coming as fast as the material is dug out below, like a small imitation of the famous Culebra cut in the Panama Canal. They were shoveling the shale and the coal down the chute, mixing it hopelessly, and probably with the idea that it was all coal. As we passed the Russian who could talk Norsk I asked him to say to his chief from me that we did not need permission to visit our own property.

"When we returned from the pit to the foot of the chute, the young man had 'saved his face," after having his authority ignored, by going back to the camp. We finished our examination, kodaked one of the Russian Company's claim-posts and one of our own, which had been mutilated, returned to our boat and to the ship."

They proceeded a mile or more farther west, and on Coles Bay Point found a new house building of heavy plank and timber frame-work for the headquarters of the Russian trespassers. It was already enclosed and partly finished inside, and seemed extravagant in its use of heavy, solid material.

Flying the Russian Flag. "We went ashore," continues Mr. Longyear's narrative," with the captain, who does not speak English, so he could not act as interpreter for us, but the sign-post near the house showed that it belonged to the same people we had found at our first landing. The captain found a man he knew who could speak Norsk, and he learned that two men were to stay in the house all Winter. A flag-pole, near the house had a Russian flag at its top. About 300 feet west of this house stands one of our claim-posts, put there in 1905. We went to it and examined it. The board on which had been painted the name of the Arctic Coal Company, Boston, Massachusetts, U. S. A., and a description of the property had been broken up, and an attempt made to burn the fragments. This had failed, and much of the original inscription could still be read. The post was originally painted in sections, red, white, and blue. Only traces of the red and blue remain, but the white paint is still in very good condition.

On each side of the four-by-four-inch post was written in blue pencil and in large letters, "Arctic Coal Company." On the white paint was written and still fairly legible, a full description of the Company's claim."

In order to get it into record form he copied it, and the claim was perfectly substantiated, for it was signed by Fred P. Burrall in 1909, after finding that some one had destroyed the board whereon the boundaries were inscribed in 1905.

The Grumant Mining Company. "This post," says Mr. Longyear, "so near the house he has built, proves at least some of the kinds of liar the young man is. We asked him for his name and the name of his company when we began our interview and he wrote them for us: Rudolf Samojlovitsch, Grumant Mining Company, St. Petersburg. Perhaps having a name like that makes one lie. We looked the house over, and though it belongs to us I do not care for it, because we do not need any house there.

"It may make a good station for the occasional winter trips from Advent Bay to Green Harbor. If the foolish trespassers will keep up their pernicious activities long enough, we may get a line of good houses all along the road between these points that will make a winter trip over the thirty miles of ice and snow,—in a howling blizzard and with the thermometer indicating 45° below-zero Fahrenheit,—a pleasure-trip."

A Harborless Mine. On the top of the Arctic Coal Company's post was some Russian writing, one word of which Mr. Longyear interpreted as "Grumant," "making it very evident that they were acting with full knowledge that they were trespassing." He could not see "what the fools were thinking of, trying to open a mine without any harbor. They would be unable," wrote Mr. Longyear in a letter to Bentinck-Smith, "to ship their coal except in the quietest weather. Some years no coal could be shipped at all. Add to that the dirty coal and the natural conditions will beat them in time. But we can not wait for that. We must find some way to protect our title."

And in another letter:

ARCTIC COAL COMPANY'S MUTILATED CLAIM-POST. TURNER (*left*) AND THE CAPTAIN OF THE "MUNROE." (*Russian trespassers' house*)

AYER AND LONGYEAR EXPLORING CAMP AT GREEN HARBOR

A Foolish Undertaking. "The trespass of the Russians at the west end of our property is surely a foolish undertaking. While the boat was going to and returning from the shore, I was able to make some observations on the dips of the formation at the point they have selected to open the coal. The strata are well exposed in two directions, and the coal must get below the water within a thousand feet, both south and west from this opening. A ravine is on the east side of this work. On the west side of the ravine, the regular formation seems to extend perhaps a thousand feet to a great fault where the coal-measure would seem again to get below the water. The ravine is probably caused by another fault. These items, in addition to the twenty per cent. of shale in the coal, and the complete lack of harbor, would seem to furnish plenty of elements of failure. Except for the precedent, we could well afford to let them fool away their money."

Mr. Longyear followed up his verbal notice to the Russian trespasser (whose name spelt in English and not in German, was Samoïlovich) with a letter in which, besides giving full particulars regarding the extent of the Arctic Coal Company's holdings, contained this warning which was plain and direct enough to be understood:

"Any attempt by you or by your Company to remove any coal or other material from the property of this Company will be resisted in any way that may become necessary, and you and your Company will be alone responsible for any serious consequences which may result from your trespass."

On the same day he wrote to the Honorable Curtis Guild, American Minister to the Court of Russia, enclosing copies of the letters sent to Samoïlovich and to the Grumant Company, and requesting him to investigate the standing of that company. He added:

Letter to Curtis Guild. "This being a No-man's Land, there is no legal redress here, and we hesitate to resort to force until all other methods of procedure fail. Can you tell me if we can bring an action for trespass in Russia against these parties, or, if they should remove a cargo of coal from

our property, can we claim it at the port where it is delivered? Should we have a reasonable fighting-chance if we try it?

"Some years ago Mr. Frederick Ayer, who is interested with me here, consulted ex-Secretary of State Olney in regard to our status here, and as I recall the substance of his opinion, it was to the effect that a forcible dispossession here would be the same as if committed on the high seas, and would be an act of piracy, punishable as such in the country to which the pirates belong."

No Apparent Redress. Curtis Guild was absent, and the Chargé d'Affaires, Charles S. Wilson, replied that the American Embassy had been unable to find any such firm as the "Mining Company Grumant," either in the city directory or in the list of mining companies at the Department of Mines. The Embassy expressed its opinion that it was not competent to answer Mr. Longyear's inquiries regarding the responsibility for forcibly removing trespassers at Spitsbergen, and thought that the Legation in Kristiania would be in a better position to give advice, as "correspondence from the Department in regard to Spitsbergen" went to Norway: in any case the matter would have to be taken up with Washington. In the opinion of the Russian Foreign Office there was no redress against trespassers: certainly no suit could be brought against them in Russia.

Proceeding farther in their visitation, Mr. Longyear and his party landed at Green Harbor and first called at the wireless station where they had a conversation with the Government operator, who was just resigning after a two years' service to go into the main office in Norway. He was very courteous, and showed the Americans over the admirably-kept station, which, in its neatness, was a great contrast with "the very nasty wreck of the old whaling-station."

At Green Harbor. They walked up to the Ayer and Longyear camp of the Green Harbor mine accompanied by a surveyor from the Advent Bay Camp, who was to survey and make a map of the mine. They found about a thousand tons of coal on the dump and a pile of 400 tons or so which

the little horse had pulled down to the shore to be loaded into lighters and used for bunkering the Company's ships and others.

"These European trespassers," comments Mr. Longyear in his home-letter, "are a funny bunch. The property the Russian trespassers have selected to try and steal from us is one that they can not possibly work if they should get it. There is no harbor nearer than ten miles, and the construction of the necessary railroad in this rough country would kill the business. On the most worthless part of our Green Harbor property Norwegians have filed claims four and five deep. They set up some claim-notices, file claims in the Norwegian government offices, publish columns of rubbish in the newspapers, and do nothing more. Some have built small camps, and one or two men stay in them part of the time, but they do little or no work. What they expect to accomplish, or what they expect to do with the property if they should get it, is a mystery to me. They probably have some misty idea that some one will come along and pay them real money because they once drove some stakes on the land. An old whaler, the *Victoria,* was at anchor in Green Harbor, and was said to have some Russian engineers aboard who are examining some of the properties claimed by some of the trespassers on our lands."

Mr. Longyear did not fail to deliver a written warning to the leader of this band of investigators. After informing him of the basis of the Ayer and Longyear claims—he added:

A Courteous Protest. "The matter of the conflicting claims on our property is now and has been for some time past the subject of diplomatic correspondence between the governments of the United States and Norway, and the title-matters will probably soon be submitted to arbitration. Until the decision of the arbitrators is had, no one, except Ayer and Longyear, can give title to any of this property.

"Wishing to avoid the likelihood of future trouble with you or with your principals, I am serving you with this notice in order that you may thoroughly understand the situation of the properties you are examining."

This courteous letter seems to have brought no response.

On Saturday, August 2, the *Munroe* started through the fog for King's Bay to make a visit to the Mansfield Camp. Hendriksen, the wireless operator was taken along as a guest.

The Mansfield Marble-quarry. "Our visit," says Mr. Longyear's account, "was a great surprise to the people in the camp, but they made us very welcome and showed us all over the place. The camp consists of about a dozen buildings, of which eight are dwellings. A large warehouse, covered with galvanized iron, stands back of the other buildings. Considerable railroad, of five-feet-three-inches gauge, is being constructed. Some work has been done toward opening a marble-quarry near the camp. The island on which this work is located is of about eight square miles in area; the channel between it and the mainland being filled with a glacier. The island is all composed of marble of great variety of colors. The little bay in which their landing is situated is called Peirson Harbor, in honor of one of the directors of the company. Beside a low, precipitous rock on one side of the bay the water is deep enough to place the small steamer the company uses alongside, as at a dock. Here a crane has been erected, making a very convenient place to unload freight and to load marble on the ship. Two channeling-machines were on the ground at the quarry, but were not in commission. Some of the work done by them last year was to be seen in the quarry."

A Marble Island. They were shown over the warehouse, which seemed admirably arranged and was stocked with supplies. Then, after enjoying a well-cooked dinner, they were taken by the superintendent and a marble-expert named Rennick in a large motor-boat four or five miles up the bay to Davis Island of perhaps forty acres in extent, and also of solid marble. Thick, warm moss covered large surfaces, making it a favorite nesting-place for terns and eider-ducks. Most of the young birds had departed, but in one the ducklings had just hatched. The mother-bird ran away at the approach of the strangers, and one of the little ones tried to follow her but soon became exhausted. "Mr. Rennick picked him up

and put him back in the nest, covering him with the down of the nest, hoping that he would not become chilled before the old bird returned to him." Under the moss were acres of excellent peat suitable for fuel.

GERMAN SCIENTIFIC STATION. After leaving the Mansfield Company's camp the *Munroe,* still surrounded by fog, cautiously made her way down the Bay and up Cross Bay, to visit the German Scientific Station at Ebeltoft's Haven on the west side of Cross Bay. Here was a small wireless station which, like the Advent Bay station, was able to communicate with the Norwegian station at Green Harbor:

"We were shown the apparatus for inflating balloons, which are sent up with instruments to record the temperatures, humidity, etc., at different elevations. Big kites are also sent up for the same purpose. A station on the ground records the temperature, humidity, rainfall, and the like; a seismograph records earthquake-vibrations. The director said that he thought that the most of the vibrations recorded here were due to the falls of ice from the faces of the numerous glaciers nearby, of which two were in sight just across the bay. The director and some of his men were out last winter on a rescue expedition after the members of that foolish so-called German Scientific Expedition which published so much 'guff' in the newspapers for more than a month."*

Mr. Longyear considered it a great pleasure and privilege to call on people whom they "did not have to warn off as trespassers." When the *Munroe* reached Advent Bay at one o'clock on the afternoon of Sunday, August 3, they found the *Grane* loading coal at the dock, though slowly, owing to boiler-difficulties at the power-house, and several other ships of their fleet waiting at anchor. The delay was a very expensive necessity. They had seen the black smoke from the departing *Kwasind's* chimneys far down toward the South as they entered the Ice Fjord.

GERMAN VISITORS. The next day Dr. F. W. Voigt, geologist from Berlin, and Herr Ernst Walther of Hamburg, arrived

*See page 191 and 199.

from Norway in a good-sized motor-boat, and brought a letter of introduction from the German Consul Jebens at Tromsø. They claimed to be on a scientific expedition. That general term covered usually a multitude of sins. They were made welcome, and conducted about the village and over the mine. Mr. Longyear says:

"When Dr. Voigt returned from the mine he expressed himself as much pleased with what he had seen, and congratulated me on the mine. He thought it one of the best coal-seams he had seen anywhere. He surprised me, and it seemed genuine, not being merely polite."

The old loading-crane was becoming very rickety and every one was hoping that it would hold out until a new and far-stronger machine, which was being erected, would be in commission. The next day Mr. Longyear, Scott Turner, and Mate Svendsen all signed the letters of protest to Samoïlovich and the Grumant Company, and sent them off. Mr. Longyear continues in his diary-letter for his family:

Norwegian Dulness. "In the afternoon I spent some time watching the crude ways in which the Norwegian workmen do things. It is curious but exasperating when the spectator is paying their wages. If any one shows them a better way they will do it that way as long as they are watched, but they are soon doing the old way again. It seems to be too much trouble to do any thinking. Most of them are just a body, two feet and two hands; nothing else. I also watched the loading of coal for a time and got some practical ideas of what we must do here to get into shape really to ship coal.

Solid Buildings at the Mine. "About five o'clock in the afternoon Scott and I went up to the mine to see the progress made in putting in concrete buildings about the pit-mouth. Only the steel and concrete roof remains to be put on the men's eating-house. All the buildings here stand just below ragged, shattered rocks in cliffs, and a slide of rock is liable to come down at any time, but especially in the Spring when the frost is thawing from the surface of the cliffs. Loose rocks come tumbling down often. The roofs of our

NORWEGIAN RADIO STATION, OLD WHALING STATION, ETC., GREEN HARBOR

STEEL HOPPER FOR LOADING COAL FROM STOCKPILE

buildings at the pit-mouth will probably be covered several feet deep in a few years. So we are making the structures to stand up under load.

"We also walked over the trail to a pit one thousand feet up the valley showing the coal-seam at the outcrop about opposite the work in the mine.

Departure from Advent Bay. "About ten o'clock in the evening the *Munroe* was loaded with coal and ready to start; so I bade the folks all good-bye and sailed away on a smooth and glassy sea. Just as we left the dock we saw a boat coming around Advent Point and it came into the bay to anchor not far from the dock. It was the *Herzog Ernst,* the auxiliary schooner of the foolish, ill-fated so-called German Scientific Expedition of last year, part of whom wintered at our camp, at our expense. . . . I wondered what kind of dead-beat scheme they may be up to now. We also saw the *Victoria,* an old whaler, now harboring some of the trespassers on our Green Harbor lands, steaming toward Sassen Bay. There are some Russians on board, who are said to be looking at the claims of our trespassers. Our guess as to this ship and its errand is that they are taking the Russians to Sassen Bay for reindeer-hunting."

Independent Socialists. The *Munroe* arrived in Green Harbor at three in the morning and began blowing her whistle when about a mile up the bay, Mr. Longyear says:

"We saw Hendriksen moving at once, but there was no sign of life about our camp for half an hour after we arrived in the little bay behind the old whaling-station. Hendriksen was aboard within ten minutes after we stopped. As the camp knew we were coming, there was no possible excuse for the delay. We had two boatloads of supplies for them, some of which they were much in need of. There is a mouthy, noisy blatherskite of a socialist in the force at this camp, who, with three others have been discharged on account of their general worthlessness, and they were probably showing their independence of any control by keeping us waiting. Half an hour after we arrived, the cook of the camp came out with a small

boat and took away a load of supplies. As he went ashore with the second load we saw the procession of four men, horse and cart and driver move from the camp up on the hill-side. The foreman of the camp had managed to get aboard when the boat came back for its second load. I sent word by him to the discharged men that if they got left they would get no pay for the time they might spend here, and must pay for their board, if they remained in our camp. He did not reach the camp with this message before the procession had started. They are a low-browed lot!"

An uneventful voyage brought the *Munroe* to Tromsø at three in the morning of Saturday, August 9. This gave Mr. Longyear the whole forenoon for business and he had time to visit the new staff-house which, by means of his pocket-barometer, he estimated was 240 feet above the sea. He returned to Trondhjem on the steamboat *Finnmarken* and found on board some acquaintances from Trondhjem.

There was a benefit concert on the ship that evening: what the program called a *Vise-aften med Assistance af Forfatterinden Maria Ekman. Forfatterinde* is Danish for authoress, and has nothing necessarily to do with forefathers. Mr. Longyear gives a whimsical account of the entertainment or rather of the Sanger-Komponist whose portrait adorns the program and has a marked resemblance to the silver-tongued orator:

Bryan's Double. "I was amazed to see the worthy Secretary of State of the United States of America, the Hon. William Jennings Bryan, come marching into the room with a big Swedish lute hung around his neck by a red cord. And he proceeded to give us the first part of the show, which he did very well, singing in a good voice a jargon which Hendricksen told me was Danish. Then the lady gave some recitations in Swedish which were enthusiastically received by those who understood her. She and Bryan alternated several times. Then a Norwegian man made them a few remarks of thanks. Bryan is masquerading under the name of Saxtorph-Mikkelsen, but I knew him all right. I have heard something about

Bryan's being obliged to eke out his salary as Secretary of State by giving Chautauqua lectures and the like, but I don't believe that any one suspected that he was giving pass-the-hat concerts in Europe. This may account for the numerous absences from Washington of the Secretary of State, and why we cannot get any Government business done in that department. It is a bloody shame for Uncle Sam to treat his officials so, indeed it is!"

For a wonder the Vest Fjord was perfectly calm and quiet instead of kicking up a tumultuous sea. The atmosphere was free of fog, and the ragged wild mountains of the Norwegian coast—Rødløven, the Red Lion; Hestmandø, (Horseman's Island); Tømø, (Thumb Island) stood forth in all their grandeur.

A Chat with the Pseudo-Bryan. Mr. Longyear relates an unusual experience which happened and was an outcome of the Bryan-Saxtorph-Mikkelsen entertainment. He had been writing in his stateroom and had just pasted the program on a sheet of paper with its effigy of the entertainer when, as he describes it, "Bryan himself stepped through the open door into the room. I was so astonished that I believe I blushed. He began a voluble talk in Danish, I suppose, and made quite an oration before I managed to make him understand that he must speak English. He then in very good English said he had seen me using the little folding typewriter, as he went by the door, and wanted to ask me about it. I gave him all the information possible and had a pleasant chat with him, during which I told him that I had enjoyed his singing yesterday. He owned up to having been in the United States. I respected his incognito and never said a word to him about Spitsbergen, although I do so want the State Department to get busy and do something."

The Time-keeper's Bride. As they approached Trondhjem the wild rugged mountains became softer in outline, and there were valleys "in which were numerous 'one-cow' to 'four-cow' farms," as the natives reckon them. They arrived at the city at four o'clock in the afternoon of the 11th: "Our

time-keeper who was on board, was on the lookout for his girl, and pointed her out to me as the ship approached the dock. After we landed he introduced me to her. She is Norwegian and speaks no English, so "her man" had to translate my congratulations. She appeared to be very shy and bashful, so I did not prolong the interview and went about my business, no doubt much to the relief of an engaged couple, who have not seen each other for many moons, and are about to enter on a honeymoon."

One item in his business was to send the bride-to-be a gift, and proceeding to an excellent silversmith's, where articles of characteristic Norwegian workmanship and style were kept, he jokingly, as he suggested, selected a spoon as appropriate to the circumstances.

Back to America. He was desirous of getting back to America as promptly as possible, and took passage from Kristiania on the Steamer *Eskimo* for Hull, having had a satisfactory interview with the American Minister, Mr. Swenson, on the morning of August 13 just before the steamer sailed. In just forty-eight hours' time he was in London, where he spent six days engaged among other occupations in trying to locate possible purchasers for the Spitsbergen mine, and in talking with the agents of different engines, such as the Diesel and the Campbell. On the 21st he boarded the *Imperator,* "the largest ship afloat," and sailed from Southampton, stopping at Cherbourg where he was joined by his wife and son. Their rooms were on the same deck but more than five hundred feet from his. Mr. Longyear remarks in his diary that "it is several hundred feet to anywhere from where you are." With ten decks for passengers, he thought it was "like taking a voyage in a sky-scraper." They were landed in New York on Wednesday, August 27. About two hours after they left her dock a fire broke out on the big ship and did damage amounting to $150,000, besides suffocating one officer and overcoming a sailor who was resuscitated.

He was glad to get home, having traveled during a year on ships and trains about sixty-five thousand miles.

4. THE STRIKERS' LAW-SUIT

Shortly after Mr. Longyear departed from Norway, Turner, who had returned to Tromsø, wrote that he had found out about the two Germans, Voigt and Walther, to whom they had "shown the courtesies of Longyear City." It seemed that Voigt was at Spitsbergen with an option on the Anker claim, and "took advantage of the opportunity" to examine the property of the Arctic Coal Company "to size up the chances for mining" on those trespassers' claims. It was reported in the Norwegian newspapers and confirmed by Jebens, the German Consul at Tromsø, that he had bought them for a party of Germans.

A Nigger in the Woodpile. "Walther," he said, "who accompanied him, is a clerk in some bank in Hamburg, and without money or influence. His wife waited here in Tromsø to go to Spitsbergen, but could not raise the money to pay her passage on the touring-ships. She tried to get a cheap passage from us on the *Munroe,* but said 200 kroner for the round trip was more money than she had. All this bears out the statement that I made to you that no good ever accrued to the Arctic Coal Company from courtesies shown to visitors on Spitsbergen. There is always a nigger in the woodpile somewhere."

He reported that he had finished up the shipping-season and loaded the stock-pile to the last ton, as well as having "finished and discharged every contract outstanding against the Company," so that there was a clean slate for the year to come. It was the first time that this had ever been done.

The End of the Shipping Season. The *Munroe* went up for her last trip with a heavy load of supplies and about one hundred additional men, and after a stormy voyage returned to Tromsø on October 5. Two hundred and forty-five persons were left at Longyear City in charge of Dalburg. Gilson was to spend the Winter in the United States; a considerable number of the other American employees left on the 7th for the States, and Turner forwarded to the Boston office a memorandum concerning each one, together with their ac-

counts and records. He left with Dalburg detailed instructions for the Winter: a model of careful provision for every slightest contingency. It called for the cleaning up of the whole camp, storing of machinery, equipment, tools, and supplies; getting in the buoys, hauling up the boats and lighters; additional rock-filling at the dock; painting the insides of the cottages, replacing wooden bunks with iron ones, bringing over from the English side an iron warehouse, an unfinished family barracks, and a stable, and putting them into usable condition, and also all good timbers, tools, iron supplies, cables, props, an iron fan, iron tanks and some thousands of good bricks, water-pipes window-sashes, and everything else that might be advantageous, as the Norwegian creditors of the English company were threatening to seize the property.

The Winter Program at the Mine. He was to fumigate the bunk-houses, carefully examine and repair all chimneys, stoves, flues, and floor-plates to obviate the danger of fire, repair all carts, wheels, sleds, wheelbarrows, and build three new surface trucks, using old wheels that were lying about, put new handles in shovels, picks, and other utensils, and overhaul all the haulage-rollers, scrapping the useless parts, rebuild the old Hayward crane and have the new Brown-hoist crane in good working-order, install the new coffee-roaster and erect the new Linnekogel range. He was to haul one of the houses up to Mine Number Two and finish it, together with a substantial protection for the mine-entrance, repair the old mine-cars and experiment with wooden bodies, build coal-houses at each of the barracks; and all this and much more, in addition to the work in driving the two mines in a proper and economical manner. He ordered him to avoid payment of overtime: "Pay what the job is worth," he said, "without overtime, or change the hours of certain of the employees around so that overtime will not be necessary."

Casual Visitors. As regarded the entertainment of casual visitors who might, as in the previous seasons, claim shelter, he gave explicit inhibitions: "This Company has suffered in the past impositions by scientific and hunting expedi-

tions, resulting in the loss of thousands of kroner. We therefore now give you specific orders to harbor no distressed expeditions, engage in no relief-expeditions, advance no credit or supplies to any one not connected with this Company. Should unfortunates come to the camp, they may be kept over night and fed, but must then be moved at once to the Norwegian government station at Green Harbor. No one is to have any financial credit with us. For cash-payment in advance at Longyear City, small quantities of supplies might be sold in extreme cases where life is endangered, provided of course that the purchasers are not trespassers on the the ground of the Arctic Coal Company or of Messrs. Ayer and Longyear; but we do not want any business of this kind if it can be avoided."

Russian Over-winterers. In this connection it is interesting to note that after the 400-ton Russian ship, the *Maria,* had loaded a cargo of the mixed coal and shale taken down from the mine established by the Grumant Company, two watchmen were left in charge for the Winter. Later, during the Winter, they appeared at Longyear City, one dragging the other, who was ill, on a sled. The camp doctor did everything he could for the sick man, but he died the next day after reaching the camp. The other, whose hands and feet were so badly frost-bitten that several of his toes and fingers had to be amputated, recovered and remained at the camp for several months. His board bill was not paid until more than a year after he had returned to Russia.

During the Winter trouble with the English doctor developed, and a wireless message informed Turner that he would be sent back from Spitsbergen on the first ship down. A number of law-suits were brought against the Company by the miners. One case was that of sixteen men who sued for steamer-fare from Havøsund to Tromsø. Turner wrote:

Sixteen Miners Sue. "At the time of the threatened strike it was necessary to stop unloading the *Kwasind,* pull her away from the dock, and while three other large colliers were awaiting turn, put the *Munroe* under the spout and load

her in order that we could get her away quickly with the trouble-makers. Her cargo was billed for Havøsund, and there the laborers went ashore, and they now claim fare on the coasting steamer to Tromsø, and two days for loss of time. The local court has waived all our protests regarding its jurisdiction and procedure in this case, and our attorney informs us that we shall lose the case, although our contracts with the men read 'transportation between Spitsbergen and Norway,' and they understood when they left Advent Bay that the ship was going only to Havøsund."

The Ring-leader's Fine. Another concerned the ring-leader in the trouble, who after a week refused to work, called meetings, made a personal canvass from one bunk-house to another throughout the camp, and made inflammatory speeches urging the men to strike. "Under the terms of our contract," wrote Turner, "we fined this man 25 kroner for impeding the work, but in spite of our best efforts here, our attorney informs us that the court will decide against us, and that we shall have to refund this rascal his 25 kroner."

The attorney was correct in his prognostications: the judgment was rendered finding in full for all the plaintiffs. The Company was ordered to pay each of them 19 kroner and 75 kroner in addition. "This decision," said Turner, "is so obviously unfair and unjust that we are doing all possible to appeal it and bring it before the higher courts, but our attorney advises us that we shall not succeed in this. We expect judgment in full against us in the next case, that of the ring-leader of the strikers. Thus we are again handicapped by Norwegian court-interference, and it is becoming more apparent that justice will never be done us in the local courts, where we have never won a case, regardless of justice or equity. We are very much disturbed at this growing tendency on the part of local magistrates to deal unfairly with us."

Norwegian Justice. All their books and witnesses, Turner pointed out, were on the island during the summer and of course could not be brought to Norway in the busy season, and as no workman in Norway would ever testify against

their socialist brethren, the petty Norwegian courts would continually exercise jurisdiction over them and embarrass them, so that any one who should care to bring suit would win it by lack of evidence on the part of the Company. The principal way of controlling the workmen was the right to impose fines, and naturally if the courts broke down this power by reversing such rulings, it would make operations on the Island that much more difficult. The winning of one suit by recalcitrant miners stimulated others, and the decision in these two cases immediately brought three more which likewise were decided against the Company.

Government Investigation. Owing to the dissatisfaction of disgruntled laborers and their complaints as to food and the like at Advent Bay, spread out *ad nauseam* in the Norwegian newspapers, the Government took upon itself to investigate the conditions under which the employees were carried to Advent Bay, how they were housed after they got there, and the food served to them. The Police Court at Tromsø, under instructions from Kristiania, had been summoning witnesses and taking testimony from dozens of the workmen whose reports were of course adverse. While Turner was absent in Spitsbergen, Saether had been subpœnaed and forced to testify. Turner did not know how the investigation would come out, but he was certain that the Government would do everything possible to embarrass them, and he was inclined to think that protection would have to come through pressure brought by the representatives of the United States Government at Kristiania.

The Tax Question Again. Still another quarrel with the Norwegian Government related to the paying of taxes. Turner was afraid that in spite of all their efforts to avoid registration they would have to do so and thus come directly under the jurisdiction of the Norwegian courts. If they did they would have to pay not only high taxes, but also a fine for not having registered before.

Just about this time the Company's local attorney, Herre Arnold Holmboe, retired from active practice, and there was

no one left in Tromsø to whom they dared entrust business or ask legal advice and aid. It was reported that a new lawyer was coming early in 1914, but Turner was apprehensive that they would have to bring one up from Trondhjem whenever a suit was brought against them.

Death of an English Miner. Another serious expense on the Company was entailed by the death at Spitsbergen of an English miner, James Hindmarsh. The Newcastle solicitors informed Turner that it was the custom in such circumstances to pay a widow £300 sterling, but Turner himself, who had run across to England, felt, after inquiry of various experts, that £200 was fair in the circumstances. Meantime he was paying the widow a weekly stipend of £2, pending a fair and generous settlement.

The Company had been remarkably free from serious accidents or cases of fatal illness. There was almost no black-damp in the mine, and the climate was generally conducive to health. Moreover, statistics gathered by the United States Government that very year (1913) showed conclusively that coal-mining, contrary to a generally prevalent opinion, was far from being classed among the dangerous occupations. The Boston "News Bureau" of November 22, informed its readers that railway trainmen in England were killed at a rate of 746 to 10,000 employed, two and a half times higher than that of coal-miners. In 1911, when the death-rate was 373 out of 10,000 employed in the coal-mines of the United States, nearly twelve out of every thousand Gloucester fishermen were lost.

Safety of Coal-mining. "According to the Bureau of Mines, the number of men killed in coal-mines in 1912 was the least since 1906, the death-rate per one thousand was the smallest since 1899, and the number of tons of coal produced in proportion to the number of men killed was the greatest on record. 'These facts,' said the report, 'offer indisputable evidence that conditions tending toward safety in coal-mining are actually improving, and that coal is now being mined with less danger than ever before.' "

5. DEVELOPMENT WORK AT THE MINE

Everything on Spitsbergen was left in fairly satisfactory shape except the power-plant, but as that was the very heart of the work, its weakness prevented full effort in mining-operations. But had full effort been put forth with the large force of laborers engaged, the stock-pile ground would have been too restricted in size to hold all the coal, and it would have been practically impossible to transport it with the fleet at the disposition of the Company.

Turner therefore had planned an unusual amount of development-work which he carefully outlined in his instructions to Dalburg. Production was limited to the normal amount of 40,000 tons, and Turner devoted himself to arranging for improvement of the boilers and the haulage-equipment. As Bleicherts had demanded £150 sterling before they would proceed in planning changes in the rope-way, he went down to Leipzig in order to go over the whole matter with the engineers there, and induced them to forego that extra-fee. He went also to England to arrange for additions to the power-plant and equipment; he was awaiting competitive tenders for supplying such equipment. Then finally he sailed from Tromsø for New York, and landed on December 29.

His report for the year preceded him. It was long and in full detail, covering every element in the business. The new system of accounting enabled him to analyze and attribute the proportionate cost of each current and overhead item entering into the history of a ton of coal from the moment it was taken from the ground until it was delivered to the purchaser. The report is a model of clearness and practical efficiency. It is worth while to resume some of its most interesting particulars.

Turner's Model Report. The actual production of the mine amounted to 37,678 tons—only 322 tons less than he had predicted, and an increase of 11,279 tons, or 43% above the best record of the mine. A curve showed the weekly production, the maximum being 1305 tons, and the maximum on any one day was 263 tons; the daily average during an eleven-

month period of 335 days being 107 tons; though, as in reality work was conducted only 280 days, the real rate was 128 tons a day with two shifts. The average was cut down by the reduced work during the Summer.

Time was lost in trimming the cargoes. Norwegians are unacquainted with this art, and Turner declared they could not be taught. It was estimated that it would be a paying investment to bring trimmers from England to use for nothing else: "Based on figures derived from English coal-loading ports, it was safe to say that five good trimmers would get a vessel out quicker than twenty-five of the men they employed for that purpose." Self-trimming colliers were far more satisfactory than the old ships that they chartered with their badly-spaced hatches; but modern self-trimming colliers were held at prohibitively high prices on time-charters. Even as it was prices were half as high again as they had been two years before. They had had seven vessels in their fleet. Although weather-conditions were excellent during the shipping-season, and navigation was safer than usual, no ice having been even sighted except by the *Kwasind,* the insurance-undertakers would not let a ship run in the Northern trade without "ice-pilots" (Islodser), so they had to waste more than 4000 kroner in maintaining four in their employ. Turner thought this one of "the absurd expenses" which would always appear in the freighting-costs unless the Company insured its own ships or ran without insurance.

Slow Discharges. Another expense which seemed inevitable in connection with freighting was the slow discharge of coal in Norwegian ports. The *Kwasind,* for instance, was held nine days at Hammerfest: "a cargo of the same size would have been taken out of her in twenty hours in London."

To remedy the shortcomings at the dock, Turner was lengthening it and strengthening it, building a new stock-pile in a more convenient place to give storage for 15,000 tons, and planning for a storage-hopper where at least a thousand tons could be held in readiness to dump into a ship. The new crane and the old one repaired would also help expedite load-

ing. He would have liked an overhead traveling-bridge system at the dock, but as that would entail large expense, he was arranging for a branch ropeway which would make a good storage-arrangement for 60,000 tons of coal, and obviate the long hand-tram and the long-haul and steep grade in loading, likewise eliminating many extra men.

The Munroe Outgrown. The *Munroe* was proving too small for their increasing service and was a source of wasteful expense, being unable to carry up men enough or bring back more than half the winter crew. Turner thought it unfortunate to mix the two crews, "as the stale winter men fill the newcomers with all the accumulated grievances of the long Winter." In case of its being necessary to deport strikers on a large scale, as had already happened, she was too small to carry them all away at the same time. When loaded with supplies, there was not room for a single man to sleep in the hold, and her deck-cargo was often piled as high as the bridge.

She was forty years old and everything about her was wearing out. One hundred thousand kroner had been spent on her in seven years for repairs, and more would be needed each year. She was of no value as a coal-carrier, having room for only 300 tons, and that small amount requiring a long time to load and three days to discharge. She had no donkey-boiler, and had to lie idle while tied up every Summer at least once a month to blow off and clean out her main boiler. Her winches and tackle were too old and too small to lift the heavy machinery to be delivered on the island, and she could not carry the long timbers they used. She was slow and could make only two or three trips to Trondhjem during the open season: that left Spitsbergen without regular means of communication with Norway. "For instance," says Turner, "this year the *Munroe* left Advent Bay on September 6 and did not return until the 28th, so that we were left on Spitsbergen with three hundred men without any ship at our disposal and without any fresh supplies or mail." He still further elaborated on the shortcomings of the old ship:

Need of Speedy Communication. "Employees coming from England or America often have to wait in Tromsø from one to three weeks for a ship to the island at our expense, and on our time. Men are often needed quickly to fill special positions on the island, and cannot get there. The cargo-ships have no quarters for men, or galley-room to cook for them. All charters permit only those men for whom there are room and quarters, and this on most of our time-chartered ships means no men. The masters object to carrying men, and as they have no passenger-certificates, it is illegal for any of them to carry more than twelve passengers."

The service of the *Munroe* was limited to only about four months in the year, and the rest of the time she was tied up, and deteriorating much more rapidly in inaction than while in commission. Meantime "the pay of the captain, mate and engineer goes on throughout the year, although they do nothing and do not even stay in Tromsø."

His recommendation was to procure a larger and faster ship which could steam the distance between Advent Bay and Tromsø in less than two days, could carry men and freight up and men and a good cargo of coal back: a steel ship of about 1000 tons, running twelve or fourteen knots an hour, with permanent quarters for a hundred men and means of transporting 200 more, and a large galley: "She should be licensed to carry 300 passengers, and have wide hatches and clear holds, with short trims, powerful winches, and carry 800 to 1000 tons of coal, enabling us to make deliveries of such small parcels, for which we have many inquiries. When not in the Spitsbergen trade she could run in other trades and never tie up. There is no reason why such a boat, carefully planned and properly constructed, should not be profitable throughout the year, instead of being a heavy expense like the *Munroe*."

The Poor Power-Plant. A deeply darkly discouraging report was given of the power-plant, of which there was "practically nothing left. Its site," he said, "was badly chosen, as in Summer it stands on about ten feet of wet, loose gravel,

and over an underground stream of water. The engine-beds have sunk five or six feet, and are still going down; the boilers have sunk over two feet; the foundations of overy other machine have sunk or toppled over; the heavy evaporative condenser is only temporarily held up by wooden sprags, as the walls supporting it have sunk and tipped and will go entirely next year; every wall of the power-house is cracked and tumbling down. It would be better and cheaper to build a new plant on a new site, on proper foundations, than to rebuild the old one. No proper footings for the foundations were built in the original plant, and the result was inevitable.

"The roof, floor, and all the woodwork were burned last Winter, and temporary sheathing has been put on. The two Norwegian boilers are finished, after three years of poor service, and must be scrapped. One has now twenty-six dead tubes and can carry a pressure of only 80 pounds, and at that leaks badly and must be shut down and overhauled every two or three weeks. Both together will not furnish steam enough for one 100 horse-power engine, and they are in a dangerous condition.

"The plant is in a poor position for obtaining ice and snow in the Winter, and the new proposed site would cut this haul down to one-third of what it now is for eight months in the year. The plant is set in a pocket so the evaporative condenser does not get wind enough to work properly.

A New Boiler. "This Fall, in order to have any power for the Winter, it was necessary to set up a new boiler in the old plant. To do this, the ground was excavated twenty by twenty-five feet, six feet deep, and from the bottom of this pit, seventy-four eight-inch piles were driven down from four to six feet, through loose, wet gravel to frost. A reinforced concrete block, fourteen by fifteen feet and six feet deep, was then built to carry the boiler. This was very expensive, and took four weeks. All the walls and every foundation would have to be similarly treated if the old plant were to be put in shape."

He strongly recommended a proper new building near

the site of the proposed new stock-yard and paying requisite care and attention to the foundations for the machinery. It was clearly manifest that considerable increase of mechanical devices in the mine was necessary.

The "Fault" in the Mine. Turner regarded it as more important to get the mine well opened up and put into good condition than to hasten great production while still unable to get the coal moved. Owing to the disregarded instructions of former years, the conveyors in the mine had been placed in such a way that after two months of expensive preparatory work one of them had carried only 2823 tons of coal before it was up against the fault—a blank wall of rock—and had to be stored for the remainder of the Winter; the other had reached the fault on June 1. "Had we not arrived in June," comments Turner, "to change the policy of the work, the mine would have been worked into a blind pocket inside of another month."

It had taken four months to get a new face ready for the conveyors, and some 100,000 tons of coal were available in that direction. The main slope had not advanced during the Winter, and the face was exactly where it had been standing for four years. During the Summer it was driven ahead fifty feet through the fault, but no coal had been found beyond it.

Prospecting Work. To determine the position of the coal Turner proposed to run drifts through about 250 feet beyond the fault, which was more extensive than was supposed. MacGavin, with a crew of fifteen men, had been prospecting during the Summer along the outcrop up to a mile and a half of the camp, embracing work at twenty-three points and exposing coal at twelve new ones. It was estimated that in one-third of the area of the coal-horizon in the Arctic Coal Company's territory at Advent Bay were 14,100,000 tons of assured coal, 48,400,000 tons of probable coal, and 34,850,000 tons of possible coal making a grand total of 97,350,000 tons, with a possibility of 300,000,000 tons in the whole property in Seam Number Two alone.

"The mine will be opened enough by next Summer to pro-

duce over 60,000 tons per year," wrote Turner, "if sufficient power is available and mechanical haulage is provided. When the mine is thus equipped, mining costs will at once fall, and the efficiency and output per man per shift underground should be doubled."

The new mine, called Number Two, on the other side of the valley, as far as it had been opened up in two short entries, "showed from four to four and one-half feet of clean coal." Turner thought that if this mine was to be equipped for production the transportation plant should be completed as soon as possible, so as not to waste the coal which the men in driving the entries were breaking up.

The laborers during the season had been more satisfactory than in some other years, the crew having been carefully picked from applicants more numerous than usual. "There was the usual grumbling about the food, and about seventy-five men who were poor workmen or were discontented had to be sent back to Norway during the Summer. In the latter part of August two agitators made a determined effort to call a general strike, and matters looked pretty serious. It was found necessary to unberth the *Kwasind,* load the *Munroe* out of her turn, and deport twenty of the worst trouble-makers. This marked the last disturbance of the season.

"With the large number of Scandinavians and the small number of dependable white men, it is difficult to say how the Company would come out in case of trouble. The Socialists and labor-leaders in Norway are in favor of stopping all forms of Company work, and the Norwegian press is universally unfair and bitter against the Company, thus keeping good men away, and predisposing those who do go to discontent.

"No coal miners are to be had in Norway, and as the regular Norwegian metal-miners are a bad lot, it has been found best to exclude them, with the result that fishermen and farmers must be taught the ABCs of mining. Their efficiency underground is very low."

A card-index of workmen's records had been kept for two years: out of 1490 names, 522 had been blacklisted for cause,

not including those marked "no good": "thus," says the report, "over one-third of the employees prove themselves undesirable for some definite reason, and probably another third of them are such poor workmen that they will not be employed again."

Danger of Strikes. What Turner dreaded more than anything else was a strike during the shipping-season: "A temporary shut-down of the mine, or a cessation of outside building and construction-work, would be bad, but not ruinous; but if the loading crew consisting at present of about fifty men, cares to do so, it can tie us up completely. Such a strike, in the midst of the short shipping-season, with four or five high-priced ships waiting in the harbor for their turn to load, would be catastrophic. If there were twenty laborers who could be depended on, and on whom we could call to do the loading in case of trouble at Advent Bay during the Summer, it might work out to mean a saving of thousands of dollars."

Continuous Service Disastrous. Turner found that it was wise to keep the superintendance of both summer and winter seasons in American hands, but that continuous service on Spitsbergen was disastrous. Two years was about as much as any man could stand: "The conditions there," he says, "are trying, ability is needed, and there seems to be something about the long Winter and routine that brings out the yellow in a man, if any exists in him. After the most careful picking, probably not one American in three that are sent to the island will be satisfactory or prove himself adaptable to the unusual conditions which obtain there."

The Russian Trespassers. He was much exercised at the trespass of the Russians. Evidently warnings issued by Mr. Longyear were disregarded: "Buildings have been erected on your ground," he wrote, "at Coles Bay, and at a point two miles east of Coles Bay, and a quantity of materials and supplies is on the ground. In September, a Russian ship was loaded with coal from an opening on your Number Two Seam; two Russians were left at Coles Bay as watchmen during the Winter."

Regarding the Russian trespassers, Turner in a special letter outlined three methods of procedure which were as follows:

"To destroy all Russian property and sign-posts and burn the houses this Winter; to destroy only the sign-posts; or to destroy sign-posts and the buildings to the east of Coles Bay, leaving only the house and posts in Coles Bay. In the case of total destruction, the Russian inhabitants could be sent to Green Harbor, or transported to some of the buildings at the old English camp, or induced to go to Advent Bay and work for us for the Winter.

"Any of these actions would mean that you would have to have an occupying force on the ground all next Summer to resist further trespass and protect your property. Such a force would have to be organized and maintained entirely independent of your mining-operations at Advent Bay, as it is impossible with the small force of trustworthy men we have to more than accomplish the construction-work and handle the loading and shipping at Longyear City, without trouble with the workmen. Anything in the nature of this patrol or armed party would so disorganize and excite the native workmen at our mine that it would be impossible to carry on the routine operations. Also, in view of the hostile attitude of the Norwegian Government and courts, such an expedition should be fitted out in America or England, and keep away from Norway entirely.

"The word has gone all over the northern part of Europe that this small Russian company has taken half of our ground, and outside of the menace of this trespass alone, the moral effect will be that other trespassers of other nationalities will feel that they can come onto the Arctic Coal Company tract without fear of molestation.

"There is no doubt but that any procedure against this Russian company will lead to armed force, and you will have to be prepared to follow up any such exchange of hostilities to the limit. Also, it might endanger the safety of your plant and equipment at Advent Bay, as our camp there is so scat-

tered that it would be extremely vulnerable in case of attack or of visitation by individuals maliciously inclined.

"We only review these points because it seems to us that the time has come when you will have to take your stand one way or the other in this matter of trespass, and whatever you decide to do, it will involve a good deal of planning and discussion.

"We believe that you cannot afford to ignore this, the first really serious trespass you have had on the Arctic Coal Company tract, without endangering what title you have to this tract."

Work at Green Harbor. Turner had no high opinion of the tentative mine at Green Harbor. Five hundred tons had been produced during the year by six miners and a foreman, who had driven through a little less than 300 feet of coal and a little more than 150 feet of rock and coal. "The product so won was hoisted up steep grades by a horse-whim, a difficult and laborious process"—as one might suppose, since it depended on a horse-whim.

The two whaling companies which formerly operated at Green Harbor had gone out of business, and that market was permanently lost. A few tons were sold to the Norwegian wireless station, to the Deutsche Meteorologische Station, and to two motor-boats. Twelve hundred and eighty tons of marketable coal were in dumps; the 900 tons that had been hauled down to the sea-shore by a horse and sled it was proposed to load into lighters, tow to Advent Bay during the summer, and sell to the Arctic Coal Company for bunkering ships; but no lighters were available, and it still lay on the shore deteriorating under the weather. Turner estimated that operations at Green Harbor were conducted at a loss of about $5000 a year and believed that the product of the Green Harbor mine could not be marketed at a profit, "as the cost of transport to the sea, towage and lighterage to ships, would of itself equal the value of the coal."

The exploring-work was carried on by the crudest methods of operation; surveys made showed that the distance from the

adit of the mine to the water was rather more than 3300 feet, and the mine itself was about 500 feet above the sea-level. Taking the coal-horizons into consideration, MacGavin judged that the seam in which they were working was the same as Number Three at the first mine, and that better coal would be found about sixty feet beneath: corresponding to the seam worked at Advent Bay.

Abandoned Pits. The coal-horizon, as determined approximately, had a continuous drop of not far from 300 feet to a mile, so that close to the north-east corner of Green Harbor it reached a level of less than twenty feet above sea-level. At various points along the outcrop, abandoned attempts on the part of trespassers to dig prospective pits or to get out coal were found: some were filled with water, in others the entries once built were crushed and ruined. Nowhere was there evidence of any scientific prospecting or indeed of any coal of mercantile value: what had been got out was hopelessly mixed with shale and slate.

Estimated Product. Turner, basing his opinion on MacGavin's report, proposed to abandon development-work and all cutting through rock, and to "confine operations to taking out coal already blocked out, gradually robbing the mine to the entry-pillars, and perhaps eventually robbing these pillars and allowing all the workings to cave." He estimated that this would ultimately produce about 24,000 tons which would have to be transported to the water's edge and loaded into ships.

"This problem," he noted, "was further complicated by the action of the Anker Syndicate which had forbidden Ayer and Longyear to trespass on that claim. He therefore urged that no money should be spent, even on a small temporary equipment for transporting this coal, until the matter of title was definitely settled.

He was inclined to advise their withdrawing entirely from the Green Harbor tract and, since the Cape Boheman and Sassen Bay claims seemed to contain no mineral-deposits of economic value, to renounce them also. This suggestion

had been made by Gibson early in 1910 but at that time the American Minister, Peirce, thought it best to make their claim as large as possible. The chief objection to American occupation in Spitsbergen was due to what seemed to some persons the "unreasonably large area"* of their claims, and Turner thought that their position would be stronger if they confined themselves to the Advent Bay tract.

Since in the work that had been carried on in Spitsbergen from the beginning expenditure far exceeded returns, and the coal, except at Advent Bay, was not remarkable for excellence, and the trifling amount of mining at Green Harbor was done "more with the idea of occupying the tract of coal-land and establishing title than with the idea of developing the property for immediate production," he advised giving it up; the seed of this advice fell on ground prepared to let it bear fruit.

A Pessimistic Outlook. Turner's pessimistic utterances regarding the outcome of the Advent Bay mine created something of a panic in the mind of Mr. Ayer. He wrote to Mr. Longyear, asking if it might not be the wisest thing after all to stop where they were and not throw good money after bad; in fact to take the venture as a failure. But Mr. Longyear was still game; he wrote a somewhat whimsical letter, in which he soothed his partner's perturbations by showing that Turner was inclined to take a gloomy view of things, and advocating a continuance of the venture which was probably not quite so desperate as it had been painted.

It is only fair to Turner to say that his outlook for the enterprise was based on the then prevailing prices for coal, labor, etc. Coal was then worth about ten shillings (British) f.o.b. Advent Bay. The World War, with its crop of "War Babies," was not as yet in sight.

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*See pages ii, 10, 28.

XIV. SPITSBERGEN DIPLOMACY

1. GULLS AND DEAD SEALS

ANY ONE is welcome to a valueless object, but as soon as it proves to be of worth quarrels over its possession immediately ensue. A suitable "historified" escutcheon for Spitsbergen would be a whale and a polar bear rampant supporting a shield, on which should be depicted a number of gulls fighting over a seal and scattered by a bald-headed eagle. The gulls should wear the crowns of the various countries claiming the Archipelago, and the legend should read: "This is Mine," and the frame should be surrounded with diamond-points, *sable,* each surmounted by an auk.

Disputed Sovereignty. When the whaling-industry flourished in the fjords of Spitsbergen, and immense parliaments of walruses met on the ice-floes, a state of semi-war existed, and Holland, England, Denmark disputed its sovereignty. Fortunately there were no human natives to be dispossessed and exterminated as the Indians and negroes have been. When the whales found it the better part of wisdom to abandon the waters contiguous to the islands, when the walruses were swept off the ice and the seals became few, no country wanted Spitsbergen, and for nearly two hundred years it was left to a few hunters to pick up a scanty livelihood by gathering eider-down and birds' eggs, or to kill off the reindeer and polar bears. It was literally a no-man's land—*terra nullius,* as the college graduates and diplomats liked to call it.

But just as soon as, through the enterprise of two American capitalists, the possibility of mining coal on a big scale became a reality, the governments of all the countries whose nationals had the slightest historical connection with either discovering or exploiting Spitsbergen began to cast covetous eyes at this

far Arctic group of islands. At all events, they agreed that no one of them should exercise sovereignty over it: it must be tied to no other country but preserved still as no-man's land. Yet it was evident enough that secretly each had the itching palm, and cherished hopes of ultimately getting possession of this long-neglected Golconda or Coalconda.

Norwegian Machinations. There is little doubt that Norway would have raised its flag over Spitsbergen if it had not been for England, Sweden, Russia, and Germany. The establishment of a powerful and costly wireless station at Green Harbor was assuredly not originally meant for profit, nor was it intended for the benefit of the Arctic Coal Company or of the Scandinavian miners there employed. It was significant that the site was the only tract of land belonging to any Government. The Norwegian post office at Green Harbor, enabling wireless operatives and others to mail letters at Norwegian postal rates to all parts of the world, is said to have handled only 3700 packets, including tourists' picture-post-cards, the first year of its existence; the service maintained first by a small motor-boat making six trips during the Summer between Tromsø and Spitsbergen, and afterwards by a small steamer, must have been carried on at a loss, but had political significance. The proposal made in Norway to build a church at Advent Bay and the Pope's decree promulgated in June, 1913, combining the Archipelago "with the Apostolic Vicarate of Norway," perhaps excused by the preponderance of Norwegian miners at Longyear City, also tended to fasten the grip of Norway on Spitsbergen.

One would think that, considering how many stockholders in the Arctic Coal Company were natives of Norway, every assistance would have been afforded by the Government and the press in making the great mine-venture a success; the perpetual heckling and actual persecution of its American promotors is explicable only on grounds of labor-jealousies: the labor-party, ultra-socialistic in its aims, practically controlled the Storthing, and was opposed to capital, especially foreign capital.

2. PRECARIOUS TENURE

Tenure of land in a country belonging to no government, having no inhabitants except birds and animals, was necessarily precarious. The conventional regulations governing mineral-claims nominally held, but in case of trespassing on staked or enclosed ground there was no appeal except to force, and the use of force was likely to be considered the same as piracy on the high seas, and to result in international complications.

State Aid. The Arctic Coal Company, from the beginning of their enterprise, had fulfilled the technical requirements of confirmed possession by registering both at Kristiania and at Washington with the proper authorities their claims with full descriptions and such maps as were available, and by submitting each year the report of their European manager. They also engaged Nathaniel Wilson, an attorney with office in Washington, to keep in touch with the State Department, and to give them advice and counsel in regard to diplomatic policies and international law. Mr. Longyear himself made many trips to Washington, and spent much time there in order to induce the Government to take all proper steps to protect the Company's interests. Changes in the personnel of the State Department often required an elaborate campaign of education to be started anew, and the succession of American ministers to Norway had each in turn to be convinced of the justice of the Company's position. Mr. Peirce, the American Minister at Kristiania in 1907 and for some years after, on the whole was well-disposed and friendly. Both his successors were of Norwegian birth, and if not trained in the ways of diplomacy, understood, or thought they understood, the Norse temperament.

Chief Obstacles. The principal obstacles which required State aid to overcome were the claims of Norwegian, and, toward the last, of Russian trespassers on the land-holdings of Ayer and Longyear and of the Arctic Coal Company; the interference of the Tromsø local court with the affairs of the Company in relation to their employees, the garnisheeing of

wages, the holding back of the *Munroe* on trivial pretexts, the unjust exculpation and protection of miners who, after breaking their agreements, sued their employers, and the imposition of onerous taxes and the like. Recognition by Norway of the Americans' just rights, so that the great enterprise, carried on under such unusual conditions of distance, climate, situation of coal-horizon, labor, and transportation, might not be imperilled; the maintenance of discipline by legal support of fair contracts, cessation of petty annoyances from Norwegian officials, some form of police-control so that crimes committed on Spitsbergen might be suitably punished; and protection of the wild life so rapidly being exterminated, were the main objects at issue.

Service of the State Department. The exasperating actions of the Norwegian authorities, undoubtedly influenced by the scheming interlopers who were jealous of enterprising Americans presuming to lavish hundreds of thousands of dollars in exploiting coal in the vicinity of the North Pole, though their ultimate success would be for the advantage of Norway, lasted many years. The State Department at Washington was cordially interested in the Spitsbergen enterprise, though the officials were naturally slow about taking any measures of "protection" that might stir up awkward complications with a friendly country. They were always ready to do what seemed to them proper, and treated Mr. Longyear and his representatives with the utmost courtesy, though sometimes the Company would have liked a little more promptness in their diplomatic dealings.

Mr. Longyear felt that the United States Government treated them far better than the British Government treated the English and Scotch explorers in Spitsbergen. These men were always complaining, he says, of the lack of interest on the part of the British Foreign Department and its officials.

A Joint Administration Not Approved. Mr. Nathaniel Wilson clearly saw how the United States Government envisaged the matter of a suggested joint administration of Spitsbergen by some kind of police force or constabulary, control

of shipping, machinery for the ascertainment and preservation of titles, and the raising of money to defray such administration. "The *Powers,*" he wrote Bentinck-Smith on October 20, 1908, underlining the words, "will not want to pay anything. The United States will *certainly* pay nothing. *Custom-house* duties would hardly be visible, and as to export duties, the smallest charge would probably be very injurious to the infant industry of coal-mining."

Wilson put his finger on the great danger threatening the Arctic Coal Company in case a mixed commission, representing several countries, were empowered or agreed to establish its seat in Spitsbergen with all the paraphernalia of dignity and authority—an expensive administration-building, secretaries, policemen, tachygraphs, and the like. If the tax for payment of all this complicated machinery were to be put on the exports, the Arctic Coal Company, which alone, for some years at any rate, would be the only important industry on the Island, would practically support it. A tax on land-holdings was fairer, and would soon eliminate the claims of those that were there merely for blackmailing purposes. As all that was really required was a very simple and inexpensive police armed with sufficient authority, the Company objected to the plan proposed by Norway.

Arbitrating Differences. Norway also desired to submit the contested rights to the Green Harbor properties to arbitration, either through the International Court at the Hague or through a board chosen by the interested parties. There were valid objections to either of these methods, but the Company was willing to consent provided the contestants deposited in advance sufficient funds to cover the expenses, and provided Norway would first of all consent to recognize the absolute right of the Arctic Coal Company to the tract of land at Advent Bay, which had never been in question since it was first claimed by the original Norwegian Company. This Norway refused to do. The correspondence covering this controversy stretched over several years, but hardly deserves detailed analysis, since the matter never actually came to any decision.

3. PROPOSED CONFERENCE OF THE POWERS

Norway was fully bent on having the status of Spitsbergen determined by a conference of the Great Powers. Reports concerning this project were for some years in the air, and occasioned the Company considerable uneasiness. In December, 1908, a letter, signed by the Arctic Coal Company, by Ayer and Longyear, and by their attorney, Nathaniel Wilson, was addressed to the Honorable Elihu Root, then Secretary of State. After reiterating the well-known arguments on which their claims to the Spitsbergen properties were based, stating what they had done to justify their continued possession and calling attention to the necessity for conducting the venture on a large scale, with a small margin of profit, the letter went on in these sentences:

LETTER TO ELIHU ROOT. "Whatever may be the result of the efforts we are making and of the plans we are trying to carry out, it is certain that at present our mining-interests in the Island are the only important ones and the only ones that give any promise of permanency of success.

"The English company, the Spitsbergen Coal and Trading Company, has decided to discontinue its operations at an early day and wishes to sell out to us. The Norwegian Whaling Company, the only other established interest in the Fjord, is insolvent, and it also is offering its lumber and business to us.

"This being our situation, we are vitally interested and deeply concerned in the pending proposition which, we are informed, has been made by the Norwegian Government to several of the European Powers that a conference be held at an early day to consider and perhaps determine how the Island of Spitsbergen, now admittedly not belonging to nor claimed by any nation, is to be governed and its affairs administered.

"Any measures that such a conference might decide upon would, if carried into effect, be the establishment of control and authority by foreign Powers over a locality where American interests are now paramount, and where our investments and business operations are now practically the only ones at stake.

"Discriminating regulations, the imposition of taxes, duties,

charges and fees, might easily be made instruments of grievous injury to, if not the absolute destruction of our rights and property, and give opportunity to the citizens or subjects of a foreign government, desiring to secure them, to obtain the important and valuable coal-deposits which we now claim and which we hope will be of benefit and advantage to the commerce of the world.

"In view of the facts we have stated, and particularly in view of the inconclusive and experimental character of the development we have made and of the costly work we are prosecuting, and of the further fact that the existing conditions do not seem to call for or require any immediate action or interference by international concert, we think that the proposed conference early in the coming year might with great advantage to the best interest of all persons and of all nations concerned, be postponed for at least one year.

"We beg leave with great deference and with great respect to suggest the importance and desirability of such postponement.

"If delay be found impossible, we would respectfully suggest that the putting into actual operation, and the execution of any regulation, plan, or system of government, administration, or control that may be adopted by the conference, shall be delayed or suspended for at least one year, and until we have had opportunity to learn what has been decided upon and to make known whatever objections and representations we may have to urge."

British Interests. British interests were also concerned in the purpose of the proposed conference, and Dr. W. S. Bruce, who was at that time beginning his activities not only in exploring but also in exploiting certain mineral-tracts in Spitsbergen, wrote to Sir Edwin Grey, to obtain information as to what the British Government intended to do. Sir Walter Langley replied on February 12, 1909 that it was understood by the English Government that "the purpose of the proposed conference was "to discuss measures to be adopted for the amelioration of the conditions actually prevailing in Spits-

bergen and the adjacent islands, there being no question of any alteration in their present political status." He assured Sir Walter that "His Majesty's Government have only agreed to participate in the conference on the condition that existing British interests are safeguarded."

Coöperation Extended. Dr. Bruce, about the same time, informed Burrall that the Scottish Spitsbergen Syndicate, Limited, was willing to coöperate to obtain the best possible result for their individual and mutual interests on the islands, especially if British suzerainty could be effected.

Burrall realized as well as any one could that if Norwegian influence dominated all others, it would result in injury to both American and British interests, for, as he wrote to Dr. Bruce, "Norway is anxious to get control of the islands and to have the ownership of the valuable parts rest with Norwegian subjects. . . . To me it seems certain that Norway's plan is to have the administration of the government of the islands left entirely to it, applying without restriction the Norwegian laws in both criminal and civil cases."

He was convinced, too, that while Norway wanted to control the islands, it had no intention of going to any expense in so doing, but purposed to levy on the companies doing business there, and unless the conference should be thoroughly impressed with the importance of putting a limit on taxation, Norway would be able to drive all foreigners out. He could not see that the English and American companies would have anything to gain from the Spitsbergen Conference if they should have to submit to Norwegian domination, and he wanted to have the British and American representatives instructed "to work together to secure a preliminary resolution by the Conference that all titles should be respected where actual occupation, use, notices, registration, and the like could be proved. That would be a long step toward preventing unjust taxation and ensuring permanence of possession.

Norwegian Civil Code. The Arctic Coal Company had no objection to the Norwegian criminal laws, but the civil code

which had been revised with special consideration for the laboring classes bore in some respects inequitably on employers of labor. Mr. Knox, Assistant Secretary of State, informed the Honorable Henry Cabot Lodge, Chairman of the Senate Committee on Foreign Affairs, that Minister Peirce had been directed by the Department to obtain information regarding the Norwegian laws, their interpretation and application, and to show how far and with what limitations they could be safely extended; it judged from the *mémoire* transmitted by the Norwegian Government that that country expected that the administration of justice in the islands would be committed to some Power selected at the Conference as the Mandatory of all the Powers; and of course Norway expected to be that Mandatory.

A Mandatory Question. The Department expressed itself as opposing the transplantation of the whole mass of territorial law to Spitsbergen, on the ground that would be irreconcilable with the maintenance of its status as a no-man's land; "the rules and regulations to be devised," wrote Mr. Huntington Wilson, "for the protection and preservation of existing and future interests, and applicable to foreigners either inhabiting or resorting to the islands, the execution of which may be entrusted to a mandatory, should be limited to the protection of the person, property, interests of the inhabitants, and . . . the rules and regulations should guarantee the benefit of police protection and the necessary, proper, regular, orderly, and speedy administration of justice. This ponderous document with its solemn repetitions was nevertheless very satisfactory, as representing the basic attitude of the United States Government.

A Lame Excuse. It was not in the intention of Norway, when the project of an international conference was first mooted, to invite the United States Government to send representatives. The excuse for this omission seemed lame, considering that citizens of the United States were more than any others interested to have the islands properly regulated. The

paper, "Aftenpost" of Trondhjem, under date of February, 1910, after mentioning the circular note which Norway had sent to Belgium, Denmark, France, Germany, Great Britain, Holland, Sweden, and Russia, inviting these countries to participate in the conference to be held at Kristiania, remarked that the United States was not invited "as the Norwegian Government thought the United States did not have sufficient interest to participate." It added, according to an amusing translation of the article: "Mr. Longyear is, after the rumor, many times a millionaire. He called the attention of the American Government to the fact of the coal which lay out in the day." The invitation was afterwards sent to Washington; but to the relief of the Arctic Coal Company, the other countries invited offered various excuses for not participating in 1910.

Protection of Game. In the meantime, pending final settlement of the status of Spitsbergen, the Norwegian and Swedish Governments agreed on taking immediate action toward the preservation of game in Spitsbergen. As this dreadful havoc was mainly perpetrated by passengers on foreign tourist-steamers, the great navigation companies of Hamburg and Bremen were officially urged to enjoin on their captains the necessity of taking adequate measures against sporting abuses by restricting the right of using guns and ammunition and of chartering launches for hunting-trips.

There had been rumors of more drastic measures, and, while the Arctic Coal Company was even more desirous than the Scandinavian authorities that the game on Spitsbergen should be properly preserved, they were ready to resent interference with legitimate hunting on their own territory. In the early oprations of the Company an official hunter or two had been kept at the mine, but game had become so scarce that the plan was abandoned. All the Coal Company wanted was protection of property-rights, real and personal, and an authentic manner of satisfactorily establishing the relations between employer and employee. The only judiciary needed was a Court of Commitment, with power to send offenders to their own country to be tried.

4. A PRELIMINARY CONFAB

After the official postponement of the International Conference which had been set for May 19, 1910, a preliminary conference was held in the following July, not, as C. S. Saether informed the Company, at the request of the Norwegian Government, "but, on the contrary, because the other Powers interested could see no reason why Norway should have the privilege of mapping out a program for the International Conference to the exclusion of Russia and Sweden."

Saether reported that the preliminary conference was opened with due ceremony and speeches, and that meetings were held every day, but they were secret and all the newspapers knew was when the participants went to some dinner. "Some Norwegian papers," he said, "are regretting the Conference, and say that perhaps a little arrangement between the American and Norwegian mine owners would have been all that had been necessary." That arrangement might have been easily made, but what then would the politicians have done for dinners?

A Secret Conclave. This secret conclave, consisting of Francis Hagerup, Norwegian Ambassador at the Hague, Johan Herman Wollebaek, Divisional Chief of the Ministry of Foreign Affairs at Kristiania; A. Krupyensky, Russian Ambassador to Norway, and Baron Boris Nolde, Professor of International Law at Petersburg, Baron G. de Falkenberg, Ambassador of Sweden to the Court of Norway, K. Hjalmar Hammarskjöld, Governor of the Province of Upsala, and C. G. Westman, Secretary of Legation, as *dé légué technique,* met behind closed doors and drew up a *procès-verbal de clôture,* or protocol, which was recommended as a basis for the International Convention whenever that might be called. It recommended that Spitsbergen should remain a *terra nullius* and a neutral territory, and should never be annexed by any Power whatever. It outlined a scheme for a governing commission, a corps of international police, a system of civil and criminal jurisdiction, a régime for controlling the territory, dispositions regarding working men, and regulation of hunting and fishing, forbidding the use of poison or explosives in water-courses,

lakes, or fjords, and it provided for the calling of the regular convention at some indeterminate date.

The Protocol Submitted. This protocol was submitted to the countries supposed to be interested, including the Government of the United States; a translation of it together with preliminary observations on the international regulation of a no-man's land, written by Robert Lansing, then counsel of the United States in the North Atlantic Coast Fisheries Arbitration at the Hague, was put into the hands of Mr. Longyear who was "working day and night" in consultation with Nathaniel Wilson in Washington, and they suggested a number of important modifications, and prepared a counter-protocol, showing forth what the Company wanted embodied in the scheme of governing the islands. The subject was assuming surprising importance, and the State Department seemed thoroughly alive to it. Mr. Frederick Ayer wrote that if the Norwegian Government and the other Powers would accede to their plan, it would remove the Company entirely out of the realm of discussion, and they could then turn their attention, as far as their titles were concerned, to the trespass-cases at Green Harbor, with a fair chance of adjusting them equitably. He expressed his appreciation of the great amount of time and trouble which Mr. Longyear was devoting to fighting their battle.

An Illuminating Pamphlet. Mr. Longyear's consultations with Mr. Wilson resulted in a pamphlet entitled, "Observations on the Draft of a Convention concerning Spitsbergen agreed upon by Plenipotentiaries of Norway, Russia, and Sweden, and Proposed to their Respective Governments, Submitted on Behalf of the Arctic Coal Company and Frederick Ayer and John M. Longyear." This was brought to the attention of the State Department. It furnished information regarding the Archipelago of Spitsbergen, and rehearsed briefly the history of the operations of the Arctic Coal Company. It proposed that a thorough investigation of the whole question should be undertaken. It ended with this paragraph:

"It is submitted with great respect that in the conduct of such an investigation, and in considering and determining upon

a system of government and law for West Spitsbergen, simple and inexpensive and at the same time adequate to the rights and interests of its own citizens, the Government of the United States should be a participant."

Mr. Peirce also desired the United States to take part: he suggested that a cruiser should be sent to bring the American delegates, and he proposed that the Arctic Coal Company should charter a yacht and take the members of the convention to Spitsbergen. This proposal did not appeal to Mr. Longyear, though he expressed himself as willing to take there a committee on the *Munroe*.

The Note Verbale. In January, 1911, the State Department communicated to Mr. Peirce a *note verbale* concerning the conflicting American and Norwegian interests. A reply to this *note verbale* was cabled by Herre Irgens, the Norwegian Minister of Foreign Affairs, refusing the American proposal regarding arbitration of the conflicting claims, but stating that the Norwegian Government was "willing to enter on an agreement for arbitration at the Hague of the disputed occupations, the decision of arbitration to be rendered upon a free basis or upon the basis of justice and equity or upon the basis of equity." The Norwegian Government hoped to be able to induce all the Norwegian parties interested to give their consent to such arbitration. "It is the understanding of the Norwegian Government," said this reply, "that the two governments shall recognize the decision of arbitration as definitely settling the disputes between the Norwegian and American occupants taking part in the arbitration as well as their successors. Apart from this, however, the two governments shall be free as regards the conclusion of an eventual convention concerning Spitsbergen."

Peculiar Phraseology. Mr. Peirce called the attention of the Secretary of State to the peculiar wording of the phrase: "The Norwegian Government hopes to obtain from all the Norwegians interested their acceptance of such an arbitration." He informed the Secretary that the Swedish Minister had showed very little interest in the matter, declaring that "it con-

cerned only the United States and Norway." On the other hand, he said the Russian *chargé d'affaires* called upon him and showed a certain amount of regret that the United States was delaying the assembling of the Spitsbergen Conference, and suggested that the Draft Convention of the preceding Summer, elaborated by Russian, Swedish and Norwegian representatives, might be so amended as to suit American ideas. Said Mr. Peirce:

Minister Peirce's Letter. "He added that this draft named as commissioners to govern Spitsbergen only representatives of those three countries for the reason that only those three were willing to bear the expenses of the government at the same time," he said, "they had all borne in mind that the American interests in Spitsbergen were far greater at present than all the others put together, and had tried to make a draft satisfactory to the United States. When I pointed out to him that the draft proposed that the decision as to the validity of all claims reported previous to the inauguration of the convention should be made by one who would in all probability be a Norwegian, and that no appeal from his decision was provided for, he stated that this was apparently an unintentional omission, as he knew that an appeal to the three commissioners was talked of as having been provided. I then called his attention to the fact that if the Norwegian commissioner was biased, Norway would have to secure only one of the other commissioners in order to win its case, whereas we should have to secure both; to this he answered that what I said was apparently true, but that the United States could count on Russia and Sweden's doing everything possible to make the final convention fair to all and satisfactory to the United States."

The State Department's Reply. The State Department replied to the Norwegian *note verbale,* submitted by the Norwegian Ambassador, Mr. Bryn, begging leave to inform him "that the basal condition of the status of Spitsbergen being *terra nullius*, a condition in which there exists no sufficient precedents or accepted principles to guide a board of arbitration

in its decision thereon, and furthermore that experience having shown that in all arbitration it is highly important to lay before the board of arbitration what questions it has to decide upon and upon what principles it shall consider testimony and render its decisions, the Government of the United States cannot consent to arbitrate the claims of its citizens to land in Spitsbergen except upon a clearly defined basis. Nor could it consent to enter into an agreement to arbitrate subject to any contingency dependent upon the assent of private parties."

5. A PROPOSED CORPORATION

What strikes one as strange in all this controversy is not so much the jealousies between Sweden and Norway, which had just secured a divorce from each other, or cupidity on the part of Russia, Denmark, Holland, and England, all of which countries put forth claims of earliest discovery,—as that the Norwegian Government should not have listened to the petition of its own people—the Norwegian stockholders in the Arctic Coal Company, fourteen of whom, reputable men, respectfully requested the Government to confirm, as far as in it lay, the undisputed possession by the Arctic Coal Company of the Advent Bay territory, "so that the work begun could continue *in security*." "This," the petition said, "would be an advantage not only to them as stockholders but also to Norwegians in general, for the reason that the majority of the laborers employed were of that nationality, and the larger part of the materials, provisions, and the like had been and would probably continue to be purchased in Norway." This petition fell on deaf ears.

Norway had created the Frankenstein idea of an International Conference, but was evidently not sorry that the other countries held off, for, as Gibson clearly saw, there would be no keen desire for the conference in governmental circles as long as the Norwegian trespassers in Spitsbergen had no better cases than they had, and the claims and interests of American citizens were paramount there.

Mr. Longyear's Scheme of Government. By the last of May, 1911, Mr. Peirce had left Kristiania, and his successor, Mr. Laurits Selmar Swenson, had arrived in Norway. Mr. Wilson wrote advising Mr. Longyear to make his acquaintance as soon as he could. He said he was "described as a sensible, direct, and useful man, of plain ways, and quite to be depended on to see things in a practical light and *not* to make enemies and objectors unnecessarily."

Before Mr. Longyear departed for Europe and Advent Bay he prepared an elaborate scheme for a form of government for Spitsbergen. This scheme proposed that the International Conference should charter or authorize an International Corporation, to be organized under the laws of either the United States or Great Britain, with a capital of ten million dollars, to have full control of all the affairs of Spitsbergen; to undertake to preserve order; to give the people of all nations an equal opportunity in developing the natural resources of the territory; to pay the necessary officers and employees; to provide that crimes committed in Spitsbergen should be tried in the courts of any of the consenting Powers, where the defendants should within ten years of the perpetration of the crime be found; to hold prisoners in custody under the warrant of police-officers of the corporation in any of the countries represented in the compact; to make at its own expense or authorize others to make topographical, geological, and other surveys, scientific investigations that might be of value to science and commerce or contribute to the sum of human knowledge; to make laws and regulations for the purpose of administering the affairs of the territory; to administer the lands and real property on the Archipelago, registering deeds and recording mortgages and similar business of realty; to settle forms of contract between laborers and employees and decide on indemnities in case of sickness, accident or death; to aid the scientific expeditions of governments, societies, and individuals; to regulate hunting and fishing in such a way as to preserve the natural supply of game and properly to safeguard the rights of those who by reason of permanent im-

provement and residence might be entitled to such wild animals and the like as should be allowed to be taken in their vicinity; to prohibit all sales of alcoholic drinks except on prescription of a physician authorized by the Corporation.

The Proposed Capitalization. Mr. Longyear proposed that of this ten million dollar capital, the Arctic Coal Company should have two million five hundred thousand and Ayer and Longyear five hundred thousand; the remaining seven millions of stock should be sold at par, assigned in equal proportions to all countries of the consenting Powers. The charter would be perpetual but revokable at any time after ten years for such causes as malfeasance, dishonest practice, gross neglect of Charter-contract and the like, by unanimous action of the Powers authorizing the arrangement, or by verdict of the Hague Tribunal.

Seat of Sovereignty. This project was submitted to Mr. Nathaniel Wilson, who showed it to members of the State Department. He reported that the Department appeared to think that since Spitsbergen was a no-man's land in which all the citizens of the world had equal rights and opportunities, "no nation would agree that *sovereignty*, the law-making and governing power, should be conferred upon a *corporation* and the stockholders of a corporation: if the stock were subject to sale the control of the stock would be impossible."

It was suggested that it would be an easy thing for Russia, for instance, to acquire a majority of the stock, in which even the minority might find it hard to be protected from destructive legislation.

Objections Met. Mr. Longyear replied that he still thought that government of Spitsbergen by corporation as proposed by him "would be the most simple, practical, and efficient way of providing for the administration of the affairs of the Archipelago, for, in order to amount to anything, the business must be done by some one having a vital personal interest in the result. Ordinary political appointments from any of the nations concerned would probably result only in failure."

As for the possibility of Russia or any other nation's buying

up control of the stock of the Corporation, that contingency was certainly in part provided for by making possible the revocation of the charter by the Powers: "It could perhaps be managed," said Mr. Longyear, "by a majority of the voting stock being deposited in trust for all the powers, and a representative of the subscribing Powers be authorized to vote this stock."

He had no thought of suggesting that the United States should put forward such a project: he would himself take the responsibility in case it were not disapproved by the Department, which would have no responsibility until it had publicly acquiesced in it with the other Powers. "It will be an extremely difficult matter," he added, "to provide a self-supporting form of government for Spitsbergen, except on some such plan as suggested in my corporation-scheme. The great danger is of making it so costly that it will ruin any business that might otherwise be carried on there."

6. DELIBERATIONS

On January 10, 1912, Secretary Knox informed Mr. Nathaniel Wilson that the delegates of the Russian, Swedish, and Norwegian governments, who had two years previously framed a draft-administrative convention relative to Spitsbergen, were to reconvene about the middle of that month "in order to consider the various governments' replies, and for the purpose of deliberating further."

Convention Rejected. Further instructions to the Minister were to the effect that the Government of the United States could not accept the convention theretofore submitted for consideration by the Powers, the reasons for which had already been forwarded. Also, the proposed convention would place the American interests, which were greater than those of any other nationality, under the control of Russia, Norway, and Sweden. The desire of the Government of the United States was for a simple and economical form of administration in that island. Also, that the United States would only agree to a form of administration acceptable to every government interested.

Relinquishment of Claims. During this same month the suggestion was further discussed in regard to Ayer and Longyear's relinquishing certain portions of their territory which were claimed by F. Hjorth, the Green Harbor Coal Company, Christian Anker, Andreas Schröder, and the Whaling Company, the validity of which claims and right of occupation the Government of the United States would be willing to recognize provided that reciprocally the Government of Norway would recognize the validity of the rights of the Arctic Coal Company and Messrs. Ayer and Longyear to the exclusive occupancy and possession of the unrelinquished portions of their claims, namely, the tracts of land known and described as Advent Bay Tract Number One, Green Harbor Tract Number Two and Tracts Numbers Three and Four.

A Last Resort. It was to be emphatically maintained that this proposition agreed to by the American owners was to be submitted only as a last resort and to be used only in case the conflicting claims could not be settled by arbitration or otherwise. The United States Government insisted "that prior to any international agreement as to administration in Spitsbergen, all conflicting claims there must be settled, and the Conference itself be in a position to recognize and guarantee to all claimants their rights to possession in perpetuity."

This propositiou, submitted first to the Arctic Coal Company and after some delay to Mr. Longyear, was fairly satisfactory. After some exchange of telegrams and letters, the general scheme was adopted. Mr. Longyear thought the proposition to divide the east shore of Green Harbor between the four claimants—three Norwegian and one American—was eminently fair to the Norwegians, but he did not wish to be left to deal with Schröder, Hjorth, Anker, and the others: "let the Norwegian claimants settle what they get among themselves."

7. A POLITICAL CRISIS IN NORWAY

About this time (February, 1912) Scott Turner wrote that there was an acute political crisis in Norway with a likelihood

that the whole ministry would go out. He feared that Irgens would resign, for in that case negotiations would have to begin all over again with a new man. "Irgens," he said, "seems to be disposed to urge an early settlement of American-Norwegian disputes regarding Spitsbergen, as it will be a feather in his cap if he can put through the scheme outlined by the Spitsbergen Commission, and he realizes that our dispute must be settled first."

This was realized, too, by the American Minister at Kristiania, who in a telegram to the State Department said: "Russian and Swedish ministers at Kristiania fully appreciate the situation; delegates who signed the *Projects* of January last and the Norwegian Minister for Foreign Affairs feel that the final adoption of an agreement hinges on the settlement of the conflicting American and Norwegian claims."

In a letter to the Company, Mr. Wilson wrote:

"You will see from the proposed agreement what a difficult and troublesome thing arbitration can be made. You want recognition now, and certainly not through a journey to the Hague, if it can be avoided. I should think that if the squatters see what they will be obliged to go through to establish their titles by arbitral tribunals, Mr. Turner might be able to report to you, after the Norwegian Government has heard from its subjects, something that you might accept."

In a letter written about the same time he said:

The Fair Thing. "If Mr. Turner and Mr. Swenson can make the Norwegian Government believe that the Americans are willing to do the fair thing in a division, and the Norwegian Government is made to understand that the fair thing must be done as to Tract Number Two, it may be possible to make a settlement without any arbitration at all, while at the same time you get confirmation of the other three tracts. If that can be done, you can afford to be very liberal in dealing with Tract Number Two."

A Plan of Concession. The result of this correspondence was a note from Mr. Knox to Mr. Irgens in which the plan of concession was embodied. It said:

"As you are aware, it has all along been the contention of this Government that a settlement of these claims must be reached before the question of a plan of administration for Spitsbergen can be considered. Messrs. Ayer and Longyear and the Arctic Coal Company, while in no way admitting the justice of the claims of certain Norwegian nationals to parts of their claim known as the Advent Bay Tract, have now proposed, in a letter of the 26th instant, a copy of which is enclosed herewith, to surrender to Anker the greater part of his claim; to Hjorth and the Whaling Company all of their claims; and to Schröder a considerable part of his claim, provided that with certain specified limitations, as indicated in their letter, the Norwegian Government will at the same time recognize the validity and confirm the rights and claims of the Arctic Coal Company and Messrs. Ayer and Longyear to the exclusive occupancy and possession of the rest of the Green Harbor Tract Number Two, Advent Bay Tract Number One, Sassen Bay Tract Number Three, and Cape Boheman Tract Number Four. Their idea in making this concession is to avoid the necessary delay and expense incident to arbitration."

The note ended with a reiteration of the American Government's objections to the tentative plan formulated by the representative of the three Powers. The Department was again engaged in preparing a tentative plan of its own based on one already submitted and embodying a few minor changes, but was not willing to consider it possible to adopt the radical simplicity which the Arctic Coal Company urged and contended for. Mr. Wilson was doing his best to persuade the Government to "stand for a simple plan" which relates to the Company's property "without undertaking to provide by the same plan for legislation and a government over the whole archipelago of rocks and ice."

Mr. Bentinck-Smith also went carefully over the tentative plan, and pointed out the possibilities lurking in its provisions for injury to the Company's interests. His objections were all well-taken and had great weight.

British Interests Aroused. The Scottish Syndicate, Limited, also awoke to the menace of the Norwegian ambition, and its secretary, James A. Philp, addressed a letter dated July 9, 1912, to the British Secretary of State for Foreign Affairs in which he said:

"I am instructed by the directors of the Scottish Spitsbergen Syndicate, Limited, to ask how far His Majesty's Government intends to safeguard British interests in Spitsbergen. The Scottish Spitsbergen Syndicate is one of several British companies which have commercial interests in Spitsbergen. These commercial interests are, however, not very fully developed and depend very largely in the future on what protection they have from Great Britain. The Scottish Spitsbergen Syndicate was formed in 1909, and purchased several claims made by Dr. Bruce during expeditions which he made to Spitsbergen in 1898, 1899, 1906 and 1907, and by Mr. J. Victor Burn-Murdoch in 1907. In that year (1909) a steamer was chartered and sent to Spitsbergen, with two mining-engineers, several prospecting geologists, surveyors, and naturalists. Extensive investigations were made with regard to coal-measures, gypsum, oil-shale, and other deposits, and several definite areas of Spitsbergen were visited and claimed on behalf of the syndicate by Dr. Bruce, the leader of the expedition. Two houses, erected in 1907 and 1909 respectively, two boats and other stores belonging to the Syndicate are there. This month the Scottish Spitsbergen Syndicate is preparing to send out an expedition, when it is hoped the claims will be visited.

"The interests of the Scottish Spitsbergen Syndicate are more than mining-interests; they include what they consider hunting-rights, especially with the view of encouraging the breeding of fur-bearing animals, and also with a view to making accommodation for the ever-increasing tourist-traffic to Spitsbergen, and in this connection it may be mentioned that another British company has applied to the Scottish Spitsbergen Syndicate for a lease of land on one of their claims in order to set up an hotel in that country.

"The coal-deposits on Spitsbergen are exceedingly valuable, and at present there is a flourishing claim being worked by an American company. This American company has indicated that if Spitsbergen were annexed they would much prefer British annexation to any other, since British mining laws would be more conducive to their interests."

The secretary of the syndicate called particular attention to the statement made by Dr. R. N. Rudmose Brown, of Sheffield University, that Spitsbergen had been annexed by Great Britain in 1615, and asked if the annexation of Spitsbergen had ever been annulled, and "if other claims made by foreign countries held good in view of this early annexation . . . and in view of the extensive claims made by several British companies."

Langley's Reply. To this the Under-Secretary of State, Sir Walter Langley, replied, stating that the basis unanimously adopted by the Powers interested was that Spitsbergen was and would be *terra nullius,* and assuring Mr. Philip "that in any settlement arrived at British interests will be adequately safeguarded." Mr. Longyear would have been very glad had England taken steps to annex Spitsbergen: he wrote, "it would give us an established order of things at once, and I think all interested would get a square deal."

The hurried preparations for meeting Norwegian opposition at the Conference announced to be held on August 5, 1912, were fortunately stopped by another postponement, the other Powers, Germany in particular, having intimated that they could not be prepared for it. Mr. Bentinck-Smith in turn went to Washington to confer with Wilson and the State Department heads. He wrote to Mr. Longyear on the very day when the Spitsbergen Conference was to have met that he thought it might "prove possible to hammer out some simple and very inexpensive form of government, and do away with the niceties provided which might prove cumbersome. He saw that title to the real property of the Arctic Coal Company might become so involved and tangled up in indefinite controversy that it could "hardly be said to be marketable."

Jealous Powers. "The whole matter," he wrote, "is a nicety of international law, amounting practically to a quibble, but apparently the Powers are so jealous of their own rights, and so much afraid of interfering with the rights of others, that it is questionable whether those meeting in conference will be willing to arrogate to themselves power to create a form of government that would necessarily bind others. I claim, of course, that that is the very reason the Conference has been called, to deal with an international question for which no precedent exists. I also claim, whether rightly or wrongly I cannot say at this moment, and Mr. Wilson seems very doubtful as to the justice of my claim, that other International Conferences have arrogated to themselves power to create new states, to create new Constitutions and new sets of laws, and that by virtue of their doing so, citizens of no matter what Power, whether represented at your conference or not, would in all respects be bound by the laws of such new country while having a domicile there. There must be some way out of this difficulty."

He argued that if only nationals of such countries as adhered to the plan of government for Spitsbergen should come under its laws, they were free to hire as employees men of these nationalities. "Should any persons, nationals of Powers that do not express their adherence, attempt to sojourn on such part of the property to which we might have 'the exclusive and permanent use,' and which was in active occupancy by us, we could probably make it very disagreeable for them." He ended by saying of the Company's attorney: "Wilson is tremendously interested in the academic questions involved and is very much alive to the situation. I think he wants to see the people interested as often as possible, in a way to bolster up his courage and insist on the practical points that we need. He himself is a little bit fascinated by the apparent impossibility of avoiding the infraction of theoretical rights of non-assenting Powers, and does not seem to think the Gordian knot can be cut, as I claim it can."

The conflicting ambitions of the Powers in relation to Spitsbergen began to attract public attention. Some of the newspapers began to print articles, and although most of the editorial writers had the haziest notions as to the geographical position of the islands and their natural resources, others showed some intelligence. The "Washington Star," in its issue of October 19, 1913, called Spitsbergen "a barren archipelago, high up in the Arctic Ocean, thickly covered with a primeval ice-sheet," and went on to say:

Light from the Star. "Now, however, Spitsbergen may be about to become a 'possession.' The European nations have taken elsewhere all the 'possessions' they could lay their hands upon, with or without the consent of the possessed. The western hemisphere is mostly pre-empted by republics, but in other quarters the land-hungry nations have schemed and counter-schemed till there remains almost nothing worth taking. In Africa there are only Abyssinia, and Liberia; in Oceania there is nothing; in Asia the Chinese Republic is the final field of plunder. All that is left is the region of the North Pole and the mysterious lands of the Antarctic.

"At present Great Britain and Norway are both said to be laying plans for formally taking possession of Spitsbergen. Since 1600 it has been known that the islands are rich in coal-deposits, but their remoteness has precluded extensive operations. Very recently both British and Americans have seriously taken up the business of mining. They have been working in a land without a government, a region in which there is no ownership of real estate. The British Government is now urged to take formal possession before it is too late, for the Norwegians who are nearer geographically than any other people, have been perniciously active in making surveys and maps, and otherwise indicating intentions of appropriating it.

Conflicting Interests. "It is not stated on just what grounds Great Britain should assume ownership. Apparently the United States has as valid a claim as England. Both have interests in Spitsbergen. Norway's geographical claim is apparently more valid, and inasmuch as Norway has no

other 'possession' on the face of the globe, American sentiment might well support the Norsemen."

Ignorance of Spitsbergen. Of course, the "remoteness" of Spitsbergen was not what kept the nations from exploiting it: ignorance of its value was the only reason. And the claim of England to appropriating it rested on the discovery of the islands by Henrik Hudson in 1607, the statement made in Purchas's "Pilgrims" that it had been found by Sir Hugh Willoughby and Richard Chancellor in 1553, on which the Muscovy Company laid its claim of exclusive rights to whale-fishing there, and believed by many Englishmen in later times, being erroneous.

Mr. Longyear himself and others well-informed, however, knew nothing about the proposed plan of Great Britain to seize Spitsbergen, though they wished it might be so.

The article in the "Star" was a model of newspaper accuracy compared to a long telegram from Washington published in the "Boston Herald" a year later, which declared that Spitsbergen lay "on the edge of the Arctic Circle north of Norway, that not until the memory of men still living had it been found to hold vegetable coal-deposits, and that American explorers were "among the first to discover the coal-deposits." It also said that the island is "devoid of vegetation and has little or no animal life!"

Most people are quite ignorant about that region, and recently a well-educated and even cultivated American woman was heard to remark that she supposed Spitsbergen was a famous religious teacher, evidently confusing the name with that of Swedenborg! Many people speak of it as "Spitzenburg," as if it were an apple, and, indeed, it may again become an apple of discord.

8. CHANGES IN WASHINGTON

Mr. Irgens, in the change of administration in Norway, managed to retain his portfolio; but at Washington Philander C. Knox was succeeded by William Jennings Bryan, with John Bassett Moore as Counselor of the Department of State,

with power to sign as Secretary, and Dudley Field Malone as Third Assistant Secretary. The only one who knew anything about Spitsbergen affairs in this new régime was Mr. Lansing, but he was away, and did not become Counselor until the following year. So Mr. Wilson and Mr. Longyear had to begin all over again in getting the Department interested in protecting their rights. Moreover, Mr. Malone, for some reason, set himself up as "an impassible barrier to any approach or application to the Secretary or Mr. Moore." He would not himself consider the matter or consent to its being considered by any one else except through him.

The New Counselor of State. After considerable finessing, however, this difficulty was obviated, and before the final invitation came to the United States to send representatives to the Conference called for the Summer of 1914, Mr. Malone had fortunately disappeared from the arena. Mr. Moore had been professor of International Law, and was well-informed; the new Solicitor, Mr. Cone Johnson, a brilliant lawyer, who had been candidate for Governor of Texas, and his assistant Neilsen (who had a competent knowledge of the "predicament" of Spitsbergen) and Mr. Lansing, who as Counselor out-ranked the Solicitor, were all of them alive to the importance of the great international pow-wow. The new American Ambassador to Norway was Albert G. Schmedeman, who was said to be "a plain, alert middle-aged man, utterly ignorant of all Diplomatic usages and affairs, but acquainted with Norwegian character, his knowledge being obtained from Norwegian immigrants in Wisconsin. Wilson told him that he would not be bothered by questions of International Law, but that, as a business man he might make it plain that the recognition of American rights by Norway would be to the advantage of everyone except the few squatters and adventurers who were making all the trouble. Schmedeman sailed for Kristiania in September, 1913. The Department gave him no instructions regarding Spitsbergen.

Lansing's Simple Plan. Mr. Wilson had an interview with Lansing, who declared that the American rights would

certainly be cared for; and when Wilson told him that the only thing the Company had to fear from him—Lansing—was "that for a small fraction of one island and a few mining-plants" he might be disposed to "favor a form of government great and powerful and costly enough to cover forty thousand square miles and provide for a hundred thousand inhabitants," he replied that his plan as previously worked out and presented was "infinitely simpler than the one presented by the Conference and might be further simplified."

Mr. Wilson had several important interviews with the Solicitor, who expressed himself decidedly as to the American rights to the four tracts of land on Spitsbergen, and as to "the duty of the United States to make a strong presentation of the case by some one from the Department."

W. M. Collier Sent to Norway. The United States representative finally selected to proceed to Kristiania was the Honorable William Miller Collier, of Auburn, New York, who had been special assistant attorney-general for the Department of Commerce and Labor and solicitor for the same, general legal counsel and Diplomatic agent for several American corporations in Europe, and was at the time Ambassador to Spain; author of a number of standard books on bankruptcy, civil service and the trusts.

Wilson's Estimate of Collier. Mr. Wilson, who had an opportunity of presenting to him the Company's side of the controversy and their desires regarding a simple government of Spitsbergen, formed a very favorable opinion of his ability and disposition to give the most efficient service: "He is of middle age, energetic and experienced in diplomacy, a professor of international law, and has had considerable business in respect of the affairs of corporations in foreign connections. He appears to have quite a keen interest in the Spitsbergen venture and the way it has been conducted." He had the additional advantage of being able to speak French, which was to be the language of the Convention.

Mr. Wilson put into his hands a list of the papers on file in the State Department relating to coal-lands in Spitsbergen, a

copy of the first letter of the Company to the Department, dated March 1, 1906, copies of all the annual reports, a set of photographs and copies of papers relating to the Russian claims.

Views and Interviews. Mr. Longyear went to Washington and with Wilson had an interview with Mr. Lansing and Mr. Collier. Collier "had read all the reports and much of the correspondence, and appeared to have a very clear apprehension "of the case and of the opposition that would be raised at the Conference."

One thing came out clearly at these interviews: that the United States would be committed to nothing at the Conference except to the proposition that Spitsbergen must remain a *terra nuilius* and to that recognizing the American claims and confirming the right to the undisputed territory and settling the disputed territory before or at the Conference.

Attitude of the United States. It was now probable that the United States Government was committed to declare and protect the Ayer and Longyear and Arctic Coal Company rights, but to avoid all obligation to expend money without appropriations by Congress, or to participate in the actual government of the Archipelago.

Mr. Collier sailed on May 26, in order that he might have time to confer with the representatives of Great Britain and Russia before the opening of the Conference which was scheduled for June 16.

XV. AFFAIRS ON THE ISLAND

NORWEGIAN AGGRESSION

WHILE the matter of the International Conference was coming to a head, the Norwegian attitude toward the Arctic Coal Company was all the time growing more and more unfriendly. This seemed like a new variation of the old story of killing the goose that laid the golden egg. As it eventuated, the goose was not killed but the animus was ansericidal!

Registration Demanded. In order to further the attempt to compel the Company to register in Norway, the police invaded the offices at Tromsø "asking intimate questions regarding the inside-workings of the Company." Turner wrote that if they were forced to register, an entire reorganization of their business in Norway would be necessary, as the Company would have to be in the hands of a Norwegian manager and no American could be in control of the organization or the business; moreover, such registration would place them within the unrestricted control of the Norwegian courts, which, no matter what evidence was presented, always found against the foreign corporation.

A typical example was the case of a former employee, who, in December, 1912, while on his way to Green Harbor on *skier,* carrying a message to the radio station, fell in the snow and hurt his arm. He stayed at Green Harbor for ten days with his Norwegian friends, and on his return to Advent Bay consulted the doctor who found that his arm was out of joint, and set it as well as he could. The man shortly afterwards resumed work, returning to Norway about the end of May. In September, 1913, he again applied for a job, and when he was refused threatened suit and brought it. Turner wrote:

An Unjustified Law-Suit. "The accident happened about a year and a half ago, was entirely his own fault; it hap-

pened on Spitsbergen, and his *contract was signed on Spitsbergen;* this office has no record of this case; no one here was present when the man was hurt; the doctor who attended him is supposed to be in Egypt, and the superintendent at that time is now in England. Thus we can present no defense, and even if we could we should get full judgment against us, with costs, since, as I have before told you, we have never been able to win a case in Tromsø, regardless of justice or equity."

A Bad Precedent. Turner decided to refuse standing trial in Norway, and informed the American Minister at Kristiania of this decision. He was looking forward to "interesting developments," but he felt justified in doing so, for, as he said, with an implicit pun not at all characteristic of his serious character, "If this precedent is established, there is nothing to prevent fifty men claiming and getting damage for *minor* injuries sustained any time during the past eight years." He was also petitioning to the Norwegian Government regarding the cases of the sixteen workmen that had gone against the Company, and was trying to put some legal stop to the action of the Government in investigating the care and feeding of workmen on Spitsbergen. The investigating committee were still taking testimony in the police court from discharged and disgruntled former employees and strikers. Turner threatened to protest against it to the Government if their legal adviser in Kristiania could not produce a Norwegian statute justifying such procedure.

Holding Up the Munroe. The Norwegian Sea Control had refused to give the *Munroe* a passenger-certificate until the vessel should be resurveyed, a loading-mark cut in her side, and a lead-line procured. Turner had a man up from the south to do this work, but still the certificate was not forthcoming. He was also obliged to retube the boiler at considerable expense, and when that was finished another government test and inspection was required.

A Post Office Trick. Under the guise of a coöperative arrangement for carrying the Norwegian mails, the Post Office Department tried to turn a clever trick. The postmaster

at Tromsø formally asked Turner if the Department could count on the Company's good-will regarding the transportation of mail to Green Harbor and eventually to Advent Bay. In case the Company would undertake to take sealed bags of mail matter a reasonable compensation would be offered, and it was proposed to establish a Norwegian post office at the camp, or at the station of the telegraph, should it be established there, if "the hon. Company would furnish house for that purpose and let one of its Norwegian employees overtake the position as post master for a reasonable remuneration."

Turner replied, assuring the Tromsø post master of the Company's continued good-will, and agreeing, as in seasons past, to sort mail delivered at the Tromsø office in open sacks, and forward it to their employees at Advent Bay and Green Harbor free of charge, at the same time including mail to such other people on Spitsbergen as could be reached from those two distributing points, but the Company reserved the right to reject any mail that they saw fit. He refused to bid on the transport of sealed bags to Green Harbor, or to consider any proposition for the establishment of a Norwegian post office at Advent Bay. It was a plain case of the Norwegian Government's attempting to find out what was going on at Longyear City, and it was easily detected and rejected.

The Norwegian Press. The unfriendly bias of the Norwegian newspapers was equally pronounced. Whenever the summer or the winter crews came down from Spitsbergen, columns of grossly unfair and even libellous attacks upon the Company were printed. Attempts had at one time been made to reply to such attacks, but the papers would take only what was derogatory to the American company. A favorite story was that surgical operations, such as amputating men's arms and legs, were performed with razors and handsaws. If such atrocities were perpetrated they must have been done by the Norwegian doctors furnished by the Norwegian Medical Association. Press and people alike revelled in the awful stories of starvation-conditions prevailing on the Island: the list of provisions sent up every year would have been sufficient to

disprove such libels. But, as we have seen, the Government investigating committee eagerly gathered everything of this sort it could get from discharged strikers and malcontents.

Mr. Bentinck-Smith put his finger on the secret of Norwegian aggression. The question had come up as to the use of force in removing trespassers. Nathaniel Wilson had written:

"I do not think it could be considered to your advantage to do any *violence* at the present time, or to take any such measures as were talked of the other day, and I do earnestly advise you not to decide to proceed in that direction before the arrival [at Washington] of Mr. Turner. . . . I suppose that the subject of protection against the wrongful action of Norwegian officials can best be considered when Mr. Turner is here."

Trespassers Growing Bolder. Bentinck-Smith wrote under date of November 1, 1913: "Our apparent inaction in asserting the rights of Ayer and Longyear at Green Harbor, and the inference apparently drawn by the Norwegian Government and the trespassers that our State Department would not assist us in maintaining our rights, has in the past emboldened trespassers to take up more and more territory, and to disregard our protests against these acts, as well as against their prospecting and mining of coal.

An Issue Desired. "Evidently they now propose to take a further step, and have served notice for the purpose of preventing our mining and shipping coal from the Green Harbor Tract, as you will see from enclosed copy of letter, which we understand comes from the representative of the Anker interests. The shoe is now being put on the other foot. Acting on advice of the State Department, we filed our protests but avoided enforcing them in any way. We believe the present step by the Anker interests is premeditated for the purpose of bringing the matter to an issue. They doubtless propose forcibly to prevent us from mining this coal; or, if not that, they will sue us in the Norwegian courts for damages when the coal is sold, and our experience with Norwegian courts hitherto

does not lead us to believe that we shall receive favorable treatment. If the question of the ownership of this coal comes into the Norwegian courts it will for all practical purposes permit the Norwegian courts to pass on the ownership of these claims, and we should hardly expect that they would render judgment in favor of Ayer and Longyear."

This was in relation to the Norwegian trespassers at Green Harbor, but even more bold were the Russians, whose action in mining coal on the hitherto untouched tract at Advent Bay was causing more and more concern, and might easily lead to complication with the Russian Government.

Mr. Longyear's Fear. Mr. Longyear felt so troubled about it that on October 27 he wrote Wilson: "If we can get no prompt and decided action from the State Department in this matter, I find myself at great loss to know what to do. It will leave our Spitsbergen affair in such shape that probably the only practical and reasonable course for us will be to abandon the whole enterprise."

Wilson replied that while "the early and constant attention" which the Department had promised to give to the Company's affairs had not been given on account of "public and political matters which required immediate examination," and because of the "frequent exigencies which require the whole time of those in the Solicitor's office," still he was confident "the inquiry would not be stopped until definite conclusions are reached."

He was certain that the United States would recognize the Company's rights and interests and protect them. But he was equally certain that the Government would demand an exact knowledge of the amount of the American claims, and what the Company had done to warrant retaining them. He said:

"In the conversations that have occurred with the Assistant Solicitor, who is now quite familiar with the documents on file and with the history of your proceedings, reference has been made to the fact that your four tracts cover and include an area of about five hundred square miles, and have a frontage on Ice Fjord, Green Harbor, Coal [Coles] Bay, Sassen Bay,

and North Fjord. Since your entries, settlements, surveys, notices, maps, filings, etc., in 1906, there has been practically no disturbance of your possessions, occupation and use of the greater part of the entire area of all the tracts. No trespassers have actually interfered with, disputed, or contested your actual physical use, occupation, or possession of any of the four tracts, or any part thereof, except in spots. You have actually used, occupied, and improved, and expended work and material on but very small parts or portions of these four tracts. . . .

"It has been said that you have had seven years since your map was filed in which, without any hindrance (except the forces of Nature), to explore, test, survey, and develop your tracts, and to determine what are waste lands and what you desire and expect to make actual use of in mining and shipping coal or for any other purpose.

International Complications. "Although nothing has been said as to the conclusions to be drawn from what has heretofore occurred and from the present situation, I apprehend that, before the Department declares that you are entitled to the entirety of all the lands included in your claims, and before it positively takes that attitude and declares to Norway and Russia, and whether, in the event of a point-blank refusal to accede to your right to the entire territory covered by your claims, the Government could or would maintain its assertion and proceed to its enforcement.

"It seems certain that whenever this particular point is actually raised and insisted upon, which is that what you have done entitles you to the exclusive possession, use, and occupation of all the territory which you have marked, surveyed, and mapped and given notice of, there will arise international contests of long endurance, of difficulty and delay."

He therefore advised avoiding the raising of the question as to the amount of territory that might be occupied by any one person or corporation.

An Impasse. "If Norway," he went on to say, "would agree to immediate recognition and confirmation to you of all of the four tracts shown on your map, except those covered by

the Norwegian claims, that would settle your rights, as far as Norway is concerned, to all the *remaining territory.*

"The Department cannot ask Norway to make such a concession unless the Norwegian claims are conceded in whole or in part, or arbitrated as proposed by Norway. You cannot admit the validity of the Norwegian claims, nor can you approve the agreement for arbitration presented by Norway. This being the present situation, is there any way to obtain whatever of the property is indispensable or of great importance and the preservation of your vital interests?

"The Department is disposed to believe that results more useful, practical, and immediate can be accomplished through diplomacy than by arbitration or conferences or conventions. . . . You will naturally say that this does not apparently advance you a single step toward the actual statement and definition and protection of your vested interests, and would not give you any present protection or information as to what you may expect. That is very true, but it *does* present a view of the present situation, and a question as to what you should now do of the very greatest practical importance and which I will ask you carefully to consider."

Too Large a Territory. In the course of this lengthy letter he expressed it as his opinion that the Department considered that the "strength" of the Company's contention and the power of the Government to give any efficient protection were greatly impaired by the great area it claimed, and because the greater parts of the areas of its claims were "held, possessed, used, and occupied in the same way as the claims of the Norwegians,—that is by filing maps and notices, marking by stakes, stones, and otherwise,"—the Company yet having "whatever of advantage results from priority of entry, of notice of survey, and of designation by stakes and stones and the like."

They could not seen to see that priority of occupation and due notice of occupation, both on the ground and in the State Departments of both countries, constituted the very point at issue.

An Awkward Alternative. The possibility that, if the Company was not protected from such trespassing as the Russians were engaged in, the enterprise might be abandoned, threatened to put the United States in an awkward position; and Wilson reported that he assured the Assistant Solicitor that there was no intention of abandoning it "unless the Government of the United States were to decline to extend its protection." He urged the Company at least to hold in reserve its willingness materially to reduce its holdings:

"If you could see that it would best serve your interests to give up Tract Three and so much of Tract Four as is not included in the exceptions stated in your letter of February 26, 1912, and to insist on retaining the Advent Bay Tract for the particular reason that it was bought of a Norwegian company, I am sure that the Department would consider that its power to aid and the probability of obtaining speedy recognition of your rights would be immensely greater."

Mr. Wilson enclosed in his letter to the Arctic Coal Company a very lengthy communication from Assistant Secretary Osborne, who gave assurance that the State Department was doing all in its discretion to forward the interests of Messrs. Ayer and Longyear in regard to the trespassing of the Russians as well as of the Norwegians. He cited extracts from the various notes that had been directed to the Government representatives in Petersburg and in Kristiania, instructing them to bring about as speedy a decision as possible, whether these claims were to be settled by compromise or by arbitration. This communication showed that the State Department was not neglecting its duties to American citizens. This was a cheerful bit of news!

A COUNTER-OFFENSIVE

The Arctic Coal Company was quietly preparing a counter-offensive. While Turner was in Boston in January conferring with his principals, he sent a telegram to Spitsbergen ordering curtailment in the development of the mine with all possible increase of production, cessation of all work in Mine Number

Two and reduction of expenses in every way possible, and countermanding the proposed removal of the houses from the old English camp across the Bay.

The monthly messages from Longyear City indicated small production and high expenses. In reply to a wireless inquiry for the cause, Bryan telegraphed from Spitsbergen on April 27 that the plant was in fair order, but was short of equipment and of working-faces; he intimated that both the conveyors, instead of being at work in Number Ten North Gate, where the coal would be nearest to the rope-haulage in the main entry and all loaded cars would be trammed down hill, had been moved to Number Ten South Gate. Turner wrote the Company:

Ill Tidings. "For some reason, the nature of which we can only conjecture, it has been found necessary to abandon this easy coal and go back to the old south side of the mine, right against the fault, where the bottom is full of bad rolls, where the top is bad, and where the coal is a *maximum distance* from the haulage-rope in the main-entry, with the grade against the loads." The message showed also that the mine was again running into a pocket with no working-faces available for the miners. It was a puzzling situation; but with Dalburg in charge Turner was confident that the fault was in the mine and not in the men, and he contented himself with wiring him to do the best he could, to increase the working-faces and to use his own judgment regarding the best place for using the conveyors. Turner thought that the term "short of equipment" meant that there was a lack of mine-cars, as had usually been the case.

Economies Demanded. The scheme had been to put the Spitsbergen property into a condition for the most economical production. As outlays were all the time exceeding the income, with a result that the Arctic Coal Company was deeply in debt to Ayer and Longyear, it was essential to make this increase as small as possible. Then, since the enterprise was growing too big for two men to handle and finance, one of whom was very old and the other involved in many other large undertak-

ings, it was proposed to form a large corporation to take it over and to find a promoter big enough to handle such a proposition.

Chinese Miners. In order to avoid dealing with Norwegian miners, the Company again seriously contemplated contracting for Chinese laborers, and entered into negotiations with a firm in Tientsin, who had managed with remarkable success the sending of similar wholesale units to South Africa and also the settling of Chinese families in British North Borneo.

They replied that the natives of the neighbor provinces of Chihli, Shantung, and Honan were accustomed to work in the large mines of both bituminous and anthracite coal, especially in the one situated at Tongshan, which had an output of 50,000 tons of soft coal a week. They offered to supply 300 Chinese miners on a two-years' contract at wages amounting to sixty cents Mexican per day of nine hours for outside work, and eighty cents for underground work; the Arctic Coal Company to pay all travelling expenses by post over the Trans-Siberian and the Perm Railways and thence to Arkhangelsk, whence they could be taken in one of the Company's steamers to Spitsbergen and return; in addition to these traveling-expenses there would be the recruiting-fees, which included feeding and housing, together with traveling-expenses from the interior to time of embarkation, this reckoned at twenty Mexican dollars a man; an advance of thirty Mexican dollars to leave with each man's family, and an additional sum of $29.85 for outfit, these advances to be deducted from wages in eighteen instalments. The wages of the necessary headmen necessary for control would be double that of the ordinary laborer, and the chief headman would require sixty Mexican dollars a month. The Mexican dollar was equivalent to half a gold dollar. Proper safeguards, under the responsibility of the headmen, would insure the workmen doing an honest day's work and not shirking or malingering, and they would all be carefully selected and of good character. Should any of the laborers die during their employment by the Company, their remains must be sent back to China at the Company's expense.

This step toward eliminating Norway was not the only one, as we shall soon see.

3. THE PROBLEM OF THE DOCTOR

The Company was still confronted with the difficulty of finding a reliable and competent doctor for the mine settlement. The English physician employed during the winter proved to be the worst specimen of the profession they had ever had; the only extenuation of his behavior was that he must have been insane. He was sent down on the first boat, and they were hard put to it to find a substitute, for it was a dire predicament to be left without any medical man where, among so many men, accidents more or less serious were frequently occurring.

Salary Expected. Norwegian doctors scorned a salary of $100 a month. Turner thought that an American doctor at $200 a month would be cheaper in the long run than any one they could find in Europe. He had advertised in the four leading newspapers in Norway and in the "Medical Journal," also in the "Lancet" and the "British Medical Journal" and had written the headquarters of the Doctors' Association in Kristiania; had tried various schools and hospitals and a London employment-bureau, but to no avail. Personal inquiry in London succeeded no better. Turner felt very anxious. The Boston office engaged a Dr. Macaulay, who, with three other Americans, arrived at Tromsø early in June.

Health and Accidents. Fortunately, the general health at Longyear City had been kept at its usual high level. During the Winter there had been only two bad accidents. One man who was cleaning coal from under the conveyor tail-tumbler used his hand instead of a shovel: his arm was caught in the machinery and torn off. This man had done this many times before, although frequently warned against the practice, as it is necessary to clean up several times a day. This was the only accident caused by the conveyors. Falling rock killed two men, both good fellows: one was an English timberman who was careless in pulling props; the other was a Norwegian miner on

whom fell prematurely a lot of coal dislodged by a seam in the formation invisible before it fell. In each case personal carelessness was responsible.

A Strange Tragedy. Two men went insane: one was the son of his own sister. He was sent back to Norway, but caused a great deal of trouble while waiting for the ship. The other one went to the electric motor that operated the stock-pile haulage-rope and, while the men in charge of it were at dinner, threw in the switch, started the machine, and tried to put his head in between the large cog-wheels, which were of the "herring-bone" pattern, one small and one large wheel meshing into each other. There was not room for his head, but the corners of the cogs tore his face and scalp to ribbons: "He then shut off the power, and covered with blood, went to dinner," says Mr. Longyear's account, appearing among the men, as they were eating. He was cared for and his wounds were getting well, but in a few days he disappeared, and was found by some of the men in a hunting-hut eight miles from the mining-camp. He refused to go back with them. They left what food they had with them and returned to camp. When they went a second time, the next day, to get him he had again disappeared, and was never seen afterwards. Mr. Longyear, who includes this tragic story among his summer memoranda, says:

"The Norwegian workmen seem to be astonishingly stupid, and many get hurt from sheer stupidity. One man asked to be allowed to do some work on a circular saw, and told Dalburg that he knew all about working around a saw. In twenty minutes he had sawed off one of his fingers, and it developed that he had never had to do with a saw before. One man who went up on the boat with Mr. Longyear was disabled before he had been there two days. "He was working on the dock and had been cautioned to keep away from the traction-rope which pulls the cars up the incline to be dumped into the ship. His work did not require him to be near this rope, which jumps suddenly when it picks up a load. The work is so arranged that the men do not have to be near it. Dalburg happened to

see this chap standing right over the rope just it was about to jump. He yelled at him, but the sawney did not move. Dalburg ran and threw him off the rope just as it jumped: it caught one of the fellow's legs and cut it; if Dalburg had not thrown him just as he did both legs would have been cut off."

Need of a Physician. Such incidents show how justified Turner's anxiety was at having several hundred men left without a physician for weeks. Even if the accident was the man's fault, the Company had to take care of him until he got well. The Norwegian papers were printing columns of assertions that the Arctic Coal Company did nothing for any of its sick employees. Longyear City was only "an exploration camp," yet all the men injured or sick from almost every expedition that visited the island or wintered there were carefully tended, and went back not to pay for the service offered them but to "yowl about the poor way they were taken care of."

Heartless Traders. "At one time," says Mr. Longyear, "a hunter came to the camp, suffering from scurvy. The furrier for whom he was working was telegraphed to and asked if he would pay the man's expenses. The reply was, 'How many and what kind of skins has he?' The answer, 'None.' The furrier refused to have anything to do with the case. The Arctic Coal Company took care of him, fed and doctored him until he could leave."

Gratuitous Service. The Company was never able to find the address of the Russian Grumant Company, one of whose men were tended for weeks by the doctor. His fingers had been frozen and neglected and the doctor did his best to save them. Several addresses were tried but the letters always came back unclaimed. A man from the Anker claim, also a trespasser, was taken care of and fed for a considerable time. "During the winter of 1913-14, a miner suffering from tuberculosis and in charge of a nurse threw himself out of bed at the hospital in his delirium. Four of his countrymen, one of them his own nephew, saw him fall on the floor, but refused to help him. At breakfast time they told Dalburg, who asked them if

they had put him back into bed. Their reply was, 'Give us six kroner apiece and we will put him back.' Dalburg went to the house, took the dying man off the floor, and got him into bed."

Drug-Fiends. It happened that every one of the Norwegian doctors sent by the Medical Association was a drug-fiend or alcoholic subject, and when they could not smuggle liquor into the camp would drink up all the medicines and tinctures containing cocain, morphine, opium, or alcohol. Often, during the summer, after a tourist-steamer had anchored in Advent Bay, the doctor would be helplessly drunk as long as his secret supply lasted. The English Doctor proved to be an incorrigible gossip, though in other respects he was the best they ever had. He refused to stay a second winter, and left with the understanding that he would send a friend of his. The friend had made other arrangements; so through the editor of the "London Mining Magazine" he sent a doctor who arrived on the last boat. "The day after the steamer had left Advent Bay he was asked to sign a form of contract which had been sent him by Turner when the correspondence first started. He put his signature to one copy of the contract in the superintendent's office and left, saying he would come in the morning and sign the other. In the morning he came in and told Dalburg that he had burned the contract that he had signed, and 'he'd be damned if he'd sign any contract.' He forgot that he had filled out and signed the form Turner had sent him in England and had returned it to Turner. Dalburg did not know that, and supposed that the Doctor was going on without a contract, but nevertheless held the Doctor to the terms of the contract in his monthly settlements with him. The contract had specified that the Doctor should do office-work for four hours a day. This he refused to do, and Dalburg deducted it from his pay-statement every month, and the Doctor assented to it."

To finish this delectable story we may be permitted to anticipate a little. "When Turner arrived at the camp in June and found that there had been more work for the Doctor than in any winter since the camp was established, he had some

sympathy for him, and had Dalburg write him a letter to the effect that as soon as the account could be made up, the full pay mentioned in the contract would be sent to him in England, provided he did nothing in the meantime to injure the Company's interests. The last clause was put in because he had made many boasts of how he would wreck the Company and the like. He expressed himself as much pleased, and told Turner that he was 'almost a gentleman.' When the new doctor arrived, both doctors and some of the men got drunk and went rampaging about the camp for days. While the *Kul* on which the Winter doctor was to leave was loading, he was particularly tempestuous, breathing fire and slaughter.

Threats of Murder. "During the Winter he had often declared that he would kill Dalburg and Bryan. No one knew why, unless it was because they were loyal to the same employer he drew his pay from. No one paid any attention to his vaporings, but he could not have been a satisfactory table-companion! After Turner arrived and tried to do him a benefit, as above related, he added Turner to his list of candidates for slaughter. One day he came into the staff-house, wild-eyed and raging, apparently under the influence of some drug. He glared at Turner and said, 'I'm going to kill you.' He had his hand in his pocket as if holding a gun. Turner was seated in a large chair and did not move but laughed at him as he approached in a crouching way, as if about to spring upon him. Whitman, an American employé, was in the room and prepared to spring upon the lunatic if he made any real attempt to carry out his threat.

"After he had jabbered for a while Turner said to him, 'I think we have had about enough of this,' took him by the collar and led him to the door, the Doctor protesting, 'You wouldn't throw me out, would you?' Opening the door Turner said, 'No, I will not throw you out; you may go out', and he went, apparently glad not to get the thrashing he had entitled himself to. His conversation at the table was so profane and obscene that the other men found it a great trial to sit with him."

A Base Libel. Turner had engaged as forewoman a native of Tromsø about forty years old, and she was required to hire all the other women and be responsible for their character and faithfulness. When the Doctor reached Tromsø he reported as camp doctor that all the women were diseased, and had infected the whole male population of the camp. These women, who received all their orders from the forewoman, heard of this libel and went to Turner about it. Turner offered to do anything they wished about it, but after some discussion they decided that they preferred to avoid the publicity of a law-suit. After the Doctor left, he brought a claim for "overtime" amounting to several hundred pounds sterling; apparently he called all the work he did during the Winter "overtime."

A Riot. There was very little trouble among the miners during the Winter, but the steward, who had been with the Company for years, played a dirty, unprintable trick on the men. This started a riot, the angry mob threatening to lynch him. Dalburg was informed of the trouble, and getting among the men and exercising all his influence he rescued the steward, but, finding that the charge against him was authentic, dismissed him and put the second steward in his place, as he seemed to be competent. This man proved to be a peculator: suspicion was roused by the weight of his chest. It was taken to the office and found to be filled with chocolate and high-class groceries of considerable value, which he intended to take with him to Tromsø. Naturally, he also was discharged.

On the whole, the discipline and order at the mine during the Winter were remarkably good, though the crew was twenty per cent larger than any that had ever before wintered on Spitsbergen. Turner wrote:

Discipline and Good Order. "In the latter part of the Spring some became restless and a few became troublesome. As usual the men gambled a good deal with cards, so that some had no balance coming to them at the end of the winter's work. There was the usual debauch at Christmas-time, the majority of the men getting drunk on liquor smuggled in during the Fall and carefully hoarded for this occasion, or on gasoline,

kerosene, naptha, hair-oil, mouth-wash, flavoring-extracts, and other beverages,—but no harm came of it. On the whole, considering the large number of men and the absence of legal restraint these rowdies behave well on Spitsbergen, and outside of a few fights and stabbing-affrays among the men no violence was reported."

Only twenty-five per cent of the two hundred miners employed were not black-listed, but Turner said that if this class of workmen was inefficient, measured by American mining-standards, still they adapted themselves "to the severe conditions obtaining on Spitsbergen probably with more readiness than any other people could," and compared with the run of miners in other countries were "peaceable, slow to act, and not clever enough to be efficiently treacherous."

American Officials. For the first time in the history of the Company the administration of affairs on the island was entirely in the hands of Americans, and Turner thought this change from the former régime had been most satisfactory. "Instructions were carefully carried out," he said. "Economies were introduced, the work was pushed with all possible energy and speed, and the mechanical equipment was kept in good order." Bryan had succeeded in eradicating the old evil of overtime, and nearly all the miners worked on contract and were paid only for what they accomplished.

A Mild Winter. The Winter had been milder than usual. The Bay did not freeze over until early in December; but about the middle of October such a sea as had never before been experienced was caused by a violent wind-storm from the north-north-west. The big breakers dashed through and over the exposed timbers of the dock, and threatened the whole pier with destruction. Hundreds of tons of rock-filling were swept off, fouling the front of the loading-dock with rocks. All the rock-work washed away above the water-line had to be immediately replaced and further strengthened, involving a considerable expense.

The snow-fall was exceptionally light, and made the labor of procuring water for the camp and the power-house particu-

larly heavy. Ice had to be mined under the old base of the stock-pile; when that was exhausted, it had to be cut and got from the gulch west of the stock-pile, and finally from the small, fresh-water ponds in Advent Valley two or three miles from the power-plant. The evaporative condenser, built on insecure foundation, leaked so badly that it had to torn down, obliging the engines to "run non-condensing, exhausting into the air," and wasting the precious water. As not one of the machines in the plant—engines, pumps, separators—was originally set on proper foundations, each year they sagged and twisted and got out of alignment, and had to be jacked up every six months. All the walls were reported as cracked and ready to topple over; yet in spite of these difficulties the machinery "ran with about its customary efficiency," and the production of the mine maintained at 1000 tons a week through the Winter, aggregated during nine months more than 30,000 tons, and brought the total production of the mine from the beginning to June 1, 1914, up to 162,900 tons.

4. THE MUNROE ICE-BOUND

In 1914, the *Munroe* made her first trip to Spitsbergen toward the end of May, but when she arrived near Alke Point she was held there by an unprecedentedly heavy ice-pack, which had drifted up from the South, blocking the entrance to the Ice Fjord. Turner and the contingent of the summer crew that was on board disembarked and got to Longyear City, and 125 of the winter men got out to the ship over the ice. Many of the men, horses, and dog-teams broke through the rotten surface. Four of the horses were badly injured by the exposure, and much clothing and many valuable papers were ruined. It was the worst experience the *Munroe* had ever encountered. The captain demonstrated his incompetence, and would have lost his command had he not been an important witness in several of the law-suits pending in the Tromsø courts. After waiting until June 15 he had a chance to get through the ice. Turner telegraphed him, a man rowing a boat seven miles from Green Habor to deliver the message, that the ice-pack was

opening up and ordered him to seize the opportunity to get away while the ice was open.

Provisions at Hand. There were eighteen tons of provisions at Green Harbor, easily obtainable and known to be there. Nevertheless, all the officers of the ship signed and sent back to Turner a statement that they would not go until they had more bread and potatoes—that they were short of provisions, and it was too dangerous. Mr. Longyear says in his account of this episode: "The captain had come to the usual Norwegian conclusion, when anything comes up requiring a little thought, 'It can't be done.' . . . It seems to be the favorite attitude of the Norwegian mind."

That was not the attitude of Turner's mind. "On receipt of the crew's message, he sent Gilson and a trusted foreman over the rotten ice by dog-sled to reach the *Munroe* and stay on board until the ship got back to Norway. They were instructed to take, together with the captain, an inventory of the supplies on board the *Munroe*. This was done. There was found to be an abundance of provisions aboard, and this inventory, signed by these three responsible persons, was of great value later in court-proceedings for establishing the falsity of the claim of the men that there was a shortage of food. During this time a continuous effort had been made to get extra provisions to the ship, in order that the captain and crew might be appeased and the ship get under way. After three days and nights of futile attempts, in which men and horses suffered much damage, two sled-loads of provisions reached the ship. An inventory of these provisions, duly signed and witnessed, had been made before the sleds left Advent Bay, and this document was also useful later on in court, and helped entirely to disprove the testimony of the crew and laborers as to the shortage of provisions. The court-records show that the men, under oath, admitted they had plenty to eat, including at least one whole loaf of bread per man per day. So there was no shortage of bread, in fact there was an over-abundance of all supplies."

On the morning of the 18th he sent a wireless to Tromsø

reporting the *Munroe* short of provisions at the ice-edge near Alke Point, the captain refusing to proceed to Norway without further supplies, but unreachable from Advent Bay on account of rotten fjord-ice. Provisions at the camp were also running short. "Prepare as quickly as possible," ran the despatch, "a strong relief-ship with ample supplies for 300 men for six weeks accompanied by Saether. . . . It is a very critical time."

Saether Sent. The Company's officials at Tromsø immediately secured an option on the motor-steamer *Sterling,* the best ship available, and three days later, on the evening of the 25th, this ship, loaded with ample provisions and under the direction of Saether, in response to a fourth imperative wireless message, which gave explicit directions for sailing around the ice-pack and reaching the *Munroe,* sailed for the North. In case she missed the ice-bound *Munroe* within six days, she was to go to King's Bay and communicate with Turner by way of the German wireless station at Cross Bay through the Green Harbor station. In case they fell in with the *Munroe,* they were to furnish her with provisions and then take the rest of the supplies to Advent Bay.

Mr. Longyear's account of this episode throws a light on Norwegian character:

A Foolish Bargain. "Three or four days before the *Munroe* got out of the ice the hunting-smack *Frithiof* came near, and all winter men but eight made a bargain with the skipper to take them to Norway for 100 kroner each, and signed a written agreement that the amount should be deducted from their pay due from the Company. They left the *Munroe* and went to Norway on the *Frithiof.* Two days after they arrived, the *Munroe* came in. We charge the men thirty-two kroner for a round trip, and they had agreed to pay the *Frithiof* 100 for a one-way trip. The captain presented his document at the office and was paid, the amount being deducted from the men's pay. After the men had been settled with, without protest, 116 of them began suit against the Arctic Coal Company for the money which had been paid to the *Frithiof* on their order. At

the instance of the Amtmand, or Governor of the Province, the Government furnishes the legal talent for the men. After starting their suit, several of the same men filed applications for re-employment next Winter at our camp. As the courts here decide all suits against us, we expect that a verdict will be given in favor of the men. We shall appeal to the court at Trondhjem, and, if necessary, to Kristiania. We stand a somewhat better show in those courts, although the foreigner is not looked upon with favor anywhere in Norway."

Turner's Multifarious Efforts. Mr. Longyear goes on to relate the relief-efforts:—"While the helpless captain of the *Munroe* was lying in the ice, yowling for more bread and potatoes, Turner was pulling every string he could think of to get provisions to the ship. He sent a man overland fifty miles to Bell Sound, to a ship he heard was there, to get to the *Munroe* with supplies. He wirelessed a message to the German scientific station at King's Bay to send any ship that might come in there to the relief of the *Munroe*. He telegraphed to the wireless station at Green Harbor to get supplies to them, but the ice had then closed in so that it could not be done. He started Saether out from Tromsø with a vessel chartered for the purpose. This was the *Sterling*. The *Nona* was at Green Harbor, waiting for the ice to move so that it could go on its hunting expedition. Saether hired this boat to take the provisions and keep them on board until they could be delivered to the *Munroe,* and sent his own boat back to Norway. Turner telegraphed to Saether, 'Get to the *Munroe.*' Saether took this to mean that he was to get there personally; so he went over the ice with a sled-load of supplies, enough for perhaps one meal, and he managed to get there.

A Skipper's Trick. "The skipper of the *Nona* had telegraphed Turner asking for a guarantee against total loss of his boat for double her value, and of course Turner gave it. Then the skipper ran his boat into the heavy pack-ice in a different direction from the one toward the *Munroe*. This he did in an evident effort to lose his boat and so sell her to us at double her value. He did break and lose his tail-shaft. The craft would

soon have sunk had not some one on board plugged the hole and so thwarted the skipper's plan.

"Saether was still at Green Harbor, and, seeing what was doing, went after him and towed him into the harbor. The *Nona* is a sailing-craft with an auxiliary-engine. With the plug in her shaft-hole she was perfectly capable of sailing to Norway. When the *Munroe* got out of the ice, Gilson, who was on board, offered to tow her to open water, but he declined the offer and said he preferred to put his craft on the beach and repair her there. In Norway we should have had the repairs made in a ship-yard, which he could have reached in four or five days. Later she was towed to Advent Bay, and as soon as the *Lenore,* our little tug, and a lighter could be made ready, the supplies were taken off and put into our warehouse. The skipper telegraphed at our expense for a new shaft and propeller, from the people who built the boat and engine. These went up on the *Jernland,* when I went. When these parts were examined, it was found that they would not fit. They were taken into our shop and made to fit. The propeller had a tapering hole for the shaft, but the shaft had no taper and no key-way. We had to put the taper on the shaft and cut the key-way. Then it was found that the tides just at that time were 'neap-tides'—only about two feet, but would be higher soon.

Mending Propeller Shaft. "The boat was put on the beach where the water is deep in close to shore. Her bows were put out from shore and loaded down with cargo, stone, water-casks, and other heavy things, but all efforts failed to get the propeller-shaft nearer than four feet to the surface of the water. When I left they were proposing to put two big lighters, one on each side of her, fill them with water until they were almost submerged, then lash the *Nona* to them and pump them out. As they rise they will lift the shaft-hole to the surface, if they can secure lift enough. Failing that she will be towed to Norway and turned over to the ship-yard. The skipper and his crew of twelve men have not lifted a finger to help themselves, their idea being that they were on our time and

that they had a soft snap, and they probably have, although the skipper's refusal to accept the tow offered by Gilson will give us a fighting-show against exorbitant claims—or would in a fair court which we do not have in Tromsø. I have told Turner that when he is in a position to order the *Nona* to get out, to offer him a fair settlement. If he refuses it, let him sue, and fight it to a finish. His effort deliberately to destroy his boat and his refusal of a tow ought to count in our favor, to say nothing of our efforts to help him and the failure, on his part, to do anything to help himself."

The Munroe Cleared. The *Frithiof* with 136 men arrived at Tromsø on the morning of July 2, and the *Munroe* with Gilson and the fourteen other miners, finally clear of the entangling ice-pack, left Spitsbergen on Thursday, July 1, and arrived in Tromsø on the 4th. It was planned to send her up again about the middle of the month with eighty or more summer men, together with the party of Americans who had been waiting for several weeks for passage. A quantity of mine-cars and various pieces of machinery gave her a record cargo.

A cargo of provisions was waiting at Trondhjem, and the *Kul* carried them up, starting on the 5th. The *Kwasind,* which after a disastrous experience in colliding with and sinking a fishing-boat about four hundred miles northeast of Aberdeen, had been repaired at large expense in England, and had ended several contract voyages, left Trondhjem on the 3rd and stopped at Tromsø to take on twenty laborers.*

During the rest of the Summer the northern seas were quite clear of ice, and no more trouble was experienced in the schedule of traffic between Spitsbergen and Norway. Four hundred men were employed during the Summer, and by reason of improved coal-handling facilities as much as 2000 tons a day were loaded, so that 40,000 tons were despatched and sold. This was the largest season's output up to this time.

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*The fishing boat was running in a fog without giving signals, and the captain of the *Kwasind* was exonerated from blame for the disaster. J. M. L.

XVI. THE CONFERENCE OF THE POWERS

1. MR. LONGYEAR ON HAND

IN ORDER to keep watch over the proceedings of the International Conference concerning Spitsbergen, Mr. Longyear took passage on the Hamburg-American liner *Cincinnati,* which sailed from Boston, June 2. He arrived at Kristiania at noon, Sunday, the 14th. Later in the afternoon, as he went to the office of the Grand Hotel, he overheard two men asking if he had arrived: they were Mr. Collier and Mr. Neilsen, the United States representatives. He was just behind them and answered, "Yes," before the clerk had time to reply. He had some conversation with them, and also met the German representative, Dr. Simon. The next morning he made the acquaintance of a big man who proved to be Mr. V. Burn-Murdoch, and his friend Koeppern, both of the Scottish-Spitsbergen Company, who were at Kristiania to observe the doings of the Conference. He was pleased to find that they were taking so much interest, for as the British were equally concerned with the Americans in the control of Spitsbergen, he thought there was a better chance for escaping Norwegian control.

Formal Opening. On Tuesday morning the American representatives, clad in regulation frock-coats and tall silk hats, drove off in an automobile to the formal opening of the Conference, which was attended by delegates of eight countries,—Norway, Sweden, Russia, Germany, France, Great Britain, Denmark, and the United States. Their first important piece of business was to adjourn until the following Monday, so as to allow the delegates to examine the different *projects,* and especially the plan formulated by the preliminary Conference of the Norwegian, Swedish, and Russian representatives, who had met at Kristiania in June.

The sessions of the Conference were behind closed doors, so no outsider was permitted to participate in the secrets of the conclave; but Mr. Longyear, as the only one who had been up to Spitsbergen and was perfectly familiar with conditions there, and was, moreover, the person most deeply concerned in the outcome of the proceedings, was able to answer any number of questions when the delegates, as individuals, wanted information.

Why It Failed. Soon after reaching Kristiania, Mr. Collier was taken ill, and felt obliged to resign, the entire work falling on Mr. Neilsen, who unfortunately did not know French. It will be convenient here to summarize what was accomplished, or, more correctly, what failed to be accomplished by the elaborate machinery of the Conference. It failed to come to any definite decision because the representatives of Russia refused to agree that the American and all undisputed claims should be recognized and conflicting claims arbitrated. The United States found unacceptable a proposed new and simpler form of government, and this was rendered a still more hopeless muddle by the stubbornness of the German representatives, who demanded that in any form of government adopted there must be a German member.

Neilsen's Stand. During the sessions, Mr. Neilsen informed the convention that the United States was interested in the affairs of Spitsbergen simply and solely because certain American citizens had there mining-interests, involving the expenditure of about a million dollars. Therefore the American Government insisted on maintaining the status of the islands as *terra nullius,* on the recognition of the inviolability of the existing vested interests and rights in Spitsbergen, and in providing proper safeguards against the imposition of inequitable burdens on persons possessing such vested interests and rights.

He stood firmly for submitting amendments to the plan submitted by the delegates of Norway, Russia, and Sweden, with a view to incorporating into a satisfactory scheme of administration the fundamental principles devised by the Government

of the United States. He reiterated his authorized dissatisfaction with any form of government of Spitsbergen which in theory or in practical effect would constitute an admission of the right of any nation to exercise the powers of government over any persons in the Archipelago other than the citizens or subjects of such nation, or of a nation which might delegate to another nation powers over its nationals. He demanded that through common agreement the nations interested in Spitsbergen should frame, in harmony with the principles of *terra nullius,* a plan of administration over the islands, which through proper agencies, could preserve peace and order and define the relative rights and obligations of persons resident there.

He absolutely objected to power vested in the proposed international commission to exercise the harsh measure of expelling any person from the territory in which such person might be residing, and thought that questions relating to the safety of the Archipelago should be dealt with in connection with framing of provisions for the exercise of police authority and criminal jurisdiction over persons in the islands. No provision, he urged, was made to enable such person or persons properly to protect his property rights, and there was no judicial recourse by means of appeal against possible action by the Commission.

The plan under consideration permitted the proposed Commission to denaturalize citizens of such countries as failed to become parties to the Convention, and the United States was determined not to adhere to any plan which was utterly at variance with the principle of *terra nullius.*

Right of Veto. The American Government's plan provided for a right to veto. It was objected that this might render nugatory all legislation in Spitsbergen, but Mr. Neilsen replied that it was not fair to presume that any interested nations, after having devoted their efforts to devising an administration for the islands would hamper the operations of it by unwarranted and frivolous objections; but he was opposed to the suggested stipulation that each of the contracting nations should

have a voice as to the propriety of legislation affecting their nationals in Spitsbergen, in proportion to the amount which such nation might pay for this right.

No Industrial Monopoly. Mr. Neilsen particularly objected to the article in the Convention that had the effect of placing persons at the time in possession of claims on Spitsbergen in a position where they would not be on an equal footing with those that might file claims after the Convention relating to Spitsbergen had been established. He assured the assembly that the Government of the United States had no intention or desire to obtain for its nationals any industrial monopoly in the Archipelago or any recognition of extravagant claims; nor did he believe that the American claimants had any such intention or desire:

"By their enterprise and perseverance," he said, speaking in English which had to be translated into French, "American citizens have demonstrated the value of certain of the resources of the Island, an act which is of especial interest to Northern Europe. They have invested their capital, and by their energy and skill have established an industry which gives employment to a large number of persons. Their government seeks for its citizens only the recognition of the rights to which their efforts and financial risk entitle them, and the establishment of an administration which shall conserve these rights."

Red Tape. He went on to show that whereas claimants appearing before authorized officials to register new lands in the manner provided would come immediately into undisputed possession, those in present possession would have to meet with a good deal of red tape and wait for at least two years before they would obtain recognition even to the lands over which they might have had control without dispute for years.

"We desire," he said, "briefly to indicate the unsatisfactory situation in which the proposed treatment of this important question would place American claimants. From information in possession of our government, it appears that American citizens have expended, in the development of their mines, approximately a million dollars, that further great expenditures

are necessary in order to produce coal to afford a reasonable profit, and that it is their intention, with increased capital, to continue their enterprise on an extended scale. The failure of the Conference to incorporate into a Convention definite and equitable provisions in relation to existing claims would naturally be disappointing as it would be unfair to these claimants."

Safeguarding Claimants. He thought it not a satisfactory reply that the nationals of other countries also had claims in Spitsbergen, and that all claims would be affected alike by the provisions of the proposed draft. The position of the American claimants was very different, since they had actually expended great sums in exploitation of their territory, whereas other claimants had done little or nothing toward developing their claims. He thought that if the existing rights of all claimants were properly safeguarded, and if claimants were allowed to register within a reasonable time undisputed tracts of land, there would be little or no need for expensive and protracted litigation.

All this eloquence went into thin air like a morning mist. The majority of the delegates had the very vaguest notion of what Spitsbergen was; the Russians were playing politics. making a great to-do over it. Mr. Longyear thought the tendency of the conference was to "provide a pile-driver to kill a fly with," it being, as a business-proposition, very simple and requiring little in the way of government.

2. DR. BRUCE'S PAMPHLET

Waiting on the uncommunicated proceedings of the Conference was anything but lively. Mr. Longyear amused himself by attending the Exposition in honor of the one hundredth anniversary of Norwegian independence, held in what was once the park of the manor of Frogner, where he and Mrs. Longyear had called on Fru Gade in 1901. The Exposition seemed to him interesting but rather crude. A pretty young girl tried to sell him a lottery-ticket, and when he would fain have bluffed her by saying that he did not speak Norwegian, she replied in excellent English and finally told him that she

had lived in Boston or Brookline. There was some American harvesting-machinery exhibited although the Exposition was a Norwegian affair.

Cable Fees. The "Christian Science Monitor" cabled to him to report the proceeding of the Conference, but when on June 17 he went down to the telegraph office with a brief account of the opening:—that Hagerup was President, that the Minister of Foreign Affairs gave the delegates a dinner, and that King Haakon VII received them that morning at his palace, he was requested to pay more than 46 kroner, equivalent to $12.42, and found that the message would not be sent unless it were paid in advance, he decided the slight information was hardly worth the price charged, and he did not send it. The Norwegian operators did not seem to know anything about press telegrams.

He saw the Ambassadors going in their ceremonial toggery to the King's reception, which was held at eleven o'clock in the forenoon. As he stood in the lobby of the hotel he was introduced to the Russian delegates, who, he confides to his diary, had a reputation of being very rude and impolite.

Spitsbergen Tour Declined. Mr. Longyear invited the delegates to visit Spitsbergen and see for themselves the conditions that obtained there; but he was much relieved when on June 23, Dr. Simon, one of the German members of the conference and uncle to Mr. Koeppern of the Scotch Syndicate, came to him and said it would be impossible for the delegates to accept the invitation, as most of them, and especially the Russians, were in a hurry to get the work done and go home. Mr. Longyear was beginning "to think that taking a lot of sybaritic diplomats on a cruise in the Arctic Ocean on an old whaler might have put them in a frame of mind to 'soak' the Company."

The Independence Exposition. On the same day he spent several hours at the Exposition, and was amused when within fifteen minutes more than half-a-dozen people came up to him and asked him questions in Norwegian. He thought that he must look like a Norwegian. When he replied, "Talk

English," they would "give a funny look and shy off." The Norwegiains attending the Exposition struck him as being "good, reliable, honest, all-wool-and-a-yard-wide sort of folks, but so solemn and stupid!" Rarely did he see one smile.

"While the band was playing a lively march," he says, "an old chap started to dance, and a crowd of solemn-looking people formed a ring and watched him as if he were going through a serious religious ceremony. His own expression was the most lugubrious imaginable. He looked as if he were doing an irksome penance, and as if his mental anguish was almost more than he could bear. He seemed to be from some back county, and at least seventy years old. He kept good time, and stuck to his lonely dance until the band stopped. If he could do the same dance and keep that face on the vaudeville stage he would make a fortune in the United States. It was the most absurd performance I ever saw outside a variety-show."

Lunching with Delegates. The following day Mr. Longyear was invited to a luncheon with the two representatives of the Scotch Company and the two German delegates. He says:

"We all went into a little private dining-room to lunch. It was a pleasant, chatty affair, without much talk about Spitsbergen. They called me the 'King of Spitsbergen,' and insisted on my taking the head of the table. I did so on the strength of my being the oldest man in the room. We outsiders were able to tell the insiders some of our views as to what should happen to Spitsbergen, which, I imagine, as these gentlemen no doubt have their instructions from their government, will have as much effect as would a fly walking on the hammer of a pile-driver which may soon drop on him." This may have been the opinion also of the Scottish Syndicate men, for they took their leave the next day.

English Interests Paramount. They gave Mr. Longyear a pamphlet embodying an address delivered by Willian S. Bruce, LL.D., before the Manchester Geographical Society on October 21, 1913, entitled "Spitsbergen: Past and Present."

The object of the address and of the re-publication of the pamphlet from the proceedings of the Society was to prove that English interests were and always had been paramount in the Archipelago, and to urge that it was both historically and commercially suitable that Great Britain should reassert its sovereignty of 1609 and annex it.

He charged the hunters with exterminating all the game, and suggested that the only way to stop such wholesale slaughter was "for one strong country to take Spitsbergen under its wing and stop all killing for a number of years until the animals have time to recover, and then to regulate hunting, both on sea and ashore.

Comparing the enterprises of various nationalities he said:

Norwegian Enterprise. "Almost every mile of the long and much-lauded Ice Fjord has been claimed by one company or another. In Green Harbor is situated a Norwegian whaling-station and a Norwegian wireless-telegraph station. The whaling station, we learned in 1912 on our last visit, had little success in whaling that season and was likely to be given up. The powerful wireless-station, which was set up in 1911 by the Norwegian Government, seems to be out of all proportion to the commercial claims Norway has in Spitsbergen, which are not nearly of such great importance as the American and British ones. It is true there is a land whaling-station and another floating one in Green Harbor, but the wireless-station is of no use to them, and especially also in view of recent results.

Reckless Hunting. "There are so many claim-boards here and in Spitsbergen elsewhere set up by Norwegians and Swedes, and in too many cases those individuals or companies attempt to 'jump' territory claimed by others. In Green Harbor one Norwegian company has made several holes along a coal-seam where the chief work has been done by the Americans. There are also the so-called Norwegian hunters, who have practically exterminated the game in West Spitsbergen, and in Summer two or three Norwegian tourists' boats go to Spitsbergen. But these Norwegian interests can not justify

the erection of a costly wireless-station, the subsidizing of a small boat to carry the mails to and from Tromsø, and the financing of survey-expeditions, which must one and all be of political significance."

He goes on to speak of the work of the Americans in Advent Bay, who "after about ten years' work have wonderfully developed the country," of the high quality of the coal and of the ability with which it was mined. He says:

The American Company. "The American Company is well supported with capital, and is continuing to extend the equipment of its well-equipped coal-working and settlement. This Summer a veritable forest of timber has been put ashore, and rapid progress was being made with the erection of many more houses and stores. Wireless communication to Europe *via* Green Harbor, has been established.

"The demand, in fact, for this Spitsbergen coal has apparently increased at such a rate that during the Summer of 1912 there was insufficient accommodation for the number of miners and others, about 300, employed. This, indeed, appears to have been the cause of a serious strike, which the Americans faced with successful results by replacing all the malcontents, mostly Finns and Swedes, with other more willing workers. Some of the leading workers are British, and this contingent of expert miners, who have given great satisfaction, seems likely to be increased.

"Our American cousins are to be congratulated on the businesslike way in which they have developed these Spitsbergen coal-deposits. As mentioned above, they have been backed by plenty of capital. That capital has been used judiciously but freely; and if the mineral-resources of Spitsbergen are to be fully developed it is necessary to have, in the first place, plenty of capital, a considerable part of which must be spent in prospecting by capable geologists and expert mining-engineers, and to have that preliminary work followed up wisely large sums of money on equipment.

"Besides the present workings, another mine is being opened on the opposite—that is—the east side of Longyear

Valley. A busy coal jetty, steam-shovels, wire ropeway, ships, coaling, and stores going ashore for the Winter all indicate serious business, while a hundred pigs, a bull and some cows, as well as fowls, indicate present domestic comforts of the inhabitants of the rapidly-developing Longyear City."

British Holdings. He goes on to speak of the British interests in Spitsbergen—in Bell Sound, on Prince Charles Foreland, and in English Bay, as well as across Spitsbergen to WybeJansz Water or Stor Fjord, a total of 7000 square miles of territory.

He ended by reference to the preliminary Conference, at which Great Britain was not represented, "though she probably holds at present, and has held in the past, the greatest stake in the country. Naturally," he says in conclusion, "America is not interested in the annexation of an outlying archipelago of Europe, but it is probable that American claimants would favor the idea that one country should be responsible for the government of Spitsbergen and not a nondescript international council of three countries, not one of which have [*sic*] the stake in the country that American and British citizens have. No doubt also Americans would desire to have the protection of a country whose mining-laws would be conducive to the development of their enterprise in the country. There can be no doubt, in short, that American citizens would be satisfied with, nay, desire British protection. The clear duty, therefore, of the British Government is to take this step, either affirming her act of annexation in 1615 or re-annexing now, instead of giving her adherence to this scheme of triple control.

Coal for British Navy. "Organized protection there must be because at present property is not respected in Spitsbergen, and there is no security of tenure in mining-claims; and the strongest reason of all is that there is an unlimited supply of coal practically equal to the best Welsh coal (within fifty-three hours of British shores), which should not be allowed to be at the disposal of any other European navy but the British navy."

Mr. Longyear's comment on this document with its char-

acteristic British conclusion was, "I wish they would, but it is a safe bet that they will not."

Dr. Bruce. The author of the pamphlet, which aroused some comment in the London newspapers, was the same Dr. Bruce, in futile search for whom Captain Naess had risked losing the *Munroe*, and who afterwards refused to pay the expenses of the venture, which included the loss of an anchor and chain. Fred Burrall, when he went up to Edinburgh in October, 1909, to interview the members of the Scottish Syndicate, met him, and wrote Mr. Longyear that Dr. Bruce was the only one of the Syndicate he could find:

"He is a pleasant sort of man," he said, "and evinced the greatest interest in the matter of the Spitsbergen Conference." Dr. Bruce promised to lay the matter before the other members and urge the consideration of a joint representation of the British companies to the British Foreign Office. Burrall went with him to call on David Campbell, of Edinburgh, the agent of the Earl of Morton, chairman of Mansfield's company at Bell Sound, who, himself a stockholder, promised to talk the matter over with Lord Morton.

Britain's Lack of Interest. As we know, nothing came of that particular project of an international conference, but it was odd that Great Britain, in spite of the distinguished personages interested in mining on Spitsbergen, should have been satisfied to assert merely that the Government would agree to attend the Conference only on condition that British interests should be respected.

In this same letter Burrall wrote that Dr. Bruce informed him that Anker's men had put up a little hut and signs on the King's Bay property of Lord Morton's company. This they thought it important for the Conference to know about.

3. THE ANKER ESTATE

In this connection it may be mentioned that four days after Mr. Longyear reached Kristiania Herre Johan Anker, son of the Anker of Green Harbor trespass, came to call on him. He knew very little of the Spitsbergen matter, and Mr.

Longyear thought him "a decent sort of chap and one whom it might be pleasant to know if he were not a trespasser on your property."

Anker's Son Johan. Nine or ten days later he came again together with Herre Nygaard, an associate trustee of his father's estate, and their mining-engineer, who was expecting to go up to Spitsbergen the next day to begin the season's operations. They brought a map giving contours of the hill-sides of the east side of Green Harbor, extending from the Ayer and Longyear Camp Number One south to the Rendal, and with marks indicating the openings they claimed to have made. Anker told Mr. Longyear that they had given an option on the Green Harbor property, which, on payment of a certain sum, the amount of which was not mentioned, could be extended till 1915. He wanted to know if they could compromise on the *malentendu,* and Mr. Longyear assured him that he was ready to consider any reasonable suggestion. Offers of compromise, he said, had been made to the Norwegian Foreign Office through the Department of State at Washington, but these had been declined without any others having been suggested in their place: consequently Ayer and Longyear had withdrawn all their overtures. They held the only valid title there was to the property, but if compromise could be effected in a decent way, were willing to avoid the great expense of litigation which would otherwise be certain to ensue.

An Unfair Division. Anker asked if in case a sale were made they would take the money they had put in, he to take the money the estate had put in, and divide the surplus. Mr. Longyear asked what division of the proceeds he thought would be equitable, and he replied that they would give ten per cent of the amount. As this left the trespassers ninety per cent, it seemed comical to Mr. Longyear, who confesses that he "had to laugh."

They saw that he was amused, and "it seemed to make them mighty uncomfortable." He told them that he wanted to sell, but would insist on some decent kind of deal. They insisted that the Anker estate had expended not far from 300,000

kroner—more than $65,000—at Green Harbor. Mr. Longyear asked them how they had managed to spend so much and accomplish so little, and they replied that they did not know, but had found it so estimated in Christian Anker's books. He told them that it seemed to him very strange, for his company had spent less than half as much, and had done ten times more than all the other Green Harbor trespassers together, so could hardly consent to enter into any agreement on a basis less than fifty per cent.

An Option Requested. Anker then wanted to know if Ayer and Longyear would give them an option on their interest for a year at $60,000. Mr. Longyear demurred at the length of time and said he preferred a quick trade. The Anker trustees declared that they had not the ready money, and, even if they had, the Norwegian law would prevent them from using the money of the estate for such a purpose. Then Mr. Longyear suggested that if he gave them an option, it would be hardly worth while to continue work on the Green Harbor mine, but that if the work there was stopped some of the American rights might be prejudiced or forfeited. They then offered to guarantee that in case of cessation of work Ayer and Longyear should not be held responsible. That, said Mr. Longyear, was all right as far as the Anker Syndicate was concerned, but they could not bind the other trespassers; and he told the trustees frankly that all the trespassers, including Herre Christian Anker, knew of the American rights.

Legal Inhibition on Sale. Mr. Longyear was convinced that these Anker heirs were as anxious to get out of the muddle as he was. He did his best to arrange for a cash-purchase, but became convinced that legally it was impossible. They expressed regret at not having consulted the Americans before making their option, for if a better title could have been offered they could have asked a much better price.

Just as they were taking their departure, the engineer told Mr. Longyear "with much gusto" that he had found a vein of coal twenty meters below the one which Øien and his men were working. "Yes," replied Mr. Longyear, to the man's

amazement, "we found that vein in several places, but it was not good for anything."

Option Accepted. On the following Tuesday (June 30), Anker and his co-trustee came again with their proposed agreement-option, and it was so much better than Mr. Longyear had expected that, after trying them again on a cash-basis but finding them "evidently flint on that point," and not expecting or desiring "to strike fire," after suggesting a few minor changes he offered to go with them to the United States Consulate and execute the document.

A Vexing Question Settled. This they did the next day, and the document attested by the Honorable Michael J. Hendrick, Consul-General, was made legal. By its terms, Anker had the right to purchase for $60,000 before March 1, 1915, cash payment. It was stipulated that if they did not purchase, the use and occupation of the Ayer and Longyear camp at Green Harbor should be reckoned as occupation and use by the original owners, and also, if they did not purchase, their respective rights should be considered to be just what they were before. The transaction came out far more satisfactorily than these was any reason to expect. This temporary disposition of a trying situation took a great load off Mr. Longyear's mind, and they parted "with many mutual expressions of good will."

What the effect of such a transfer would have on the Norwegian Government was an interesting question. Undoubtedly all trespassers had been encouraged to file claims on the lands of Ayer and Longyear along the eastern shore of Green Harbor for the political purpose of putting additional pressure on the American owners and the American Government, and not at all as a genuine intention of recording the territory for development. Escape, therefore, from responsibility for these disputed lands was an excellent thing for the Americans; the Norwegians could then settle the controversy among themselves.

A Russian's "Nerve." While this transaction was on the tapis, the secretary of the German delegation introduced

Mr. Longyear in the lobby of the hotel to a "big, good-looking Russian," who was representing the interests of the Russian trespassers, and was on his way to Spitsbergen. He asked permission to inspect the Advent Valley mine. Mr. Longyear thought that since all the Russian enterprises in that part of the world were those of trespass, this young man displayed considerable "nerve"; "but he was so childlike and bland about it that it struck me," continues Mr. Longyear, "that perhaps he does not know that his company is a thief and a robber. I replied that as some of his countrymen to whom we have extended such courtesies had repaid us by reappearing the following year as trespassers on our property, we had decided to stop showing any one through our mines." The German secretary, as he turned away, remarked, "You are quite within your rights."

4. PLEASANT ACQUAINTANCES

While waiting around the hotel Mr. Longyear fell in with various pleasant acquaintances attracted to Kristiania by the Conference or by the Exposition. One of these was Mr. Horace Gade, who had been a student at Harvard and was now European representative of the American Radiator Company, and reported having sold more than $200,000 worth of the apparatus the year before. His father had been United States Consul at Kristiania some years before. His brother, Herman, also unexpectedly turned up: he had been Norwegian consul at Chicago. They were both important personages in the Capital.

Leading Norwegians. He met Herre Halvorsen, of Bergen, whose ships the Company had chartered. Another important Norwegian whom he met was Herre Bull Simonson, the manager of the great Nordenfjeldske steamship-line, which was the largest consumer of Spitsbergen coal. He was invited to a luncheon with several of these Norwegians, and found them delightful.

Baron von Gagern. On Sunday, June 28, as he was standing by the door of the hotel, the German Baron von

Gagern,* of whom we shall hear more in the following chapter, invited him to go for a drive. "We had a taxicab," says Mr. Longyear, "which was an ordinary open car. The porter was instructed to tell the driver to take us on a new and good route. He drove us around the city for a while and then he struck into a winding, ascending road which gradually climbed a high granite ridge, east of the city. On top we found a large, well-inhabited plateau, handsome houses, grounds, farms, and the like. A détour of several miles brought us to the east side of the Kristianiafjord, a few miles out of town. It was a pretty ride, although the air was rather fresh and we had no overcoats. . . . I have seen 'Tomter† on street-cars and other signs and wondered what it meant. Today, when we were on top of the ridge I saw a big sign-board, advertising some platted real-estate, and found that I was in Tomter, which seems to be a suburb of Kristiania." The Baron dined with Mr. Longyear, who afterwards showed him specimens of the iron made by the Jones furnace, and he was much interested.‡

Collier's Successor. The next morning, while breakfasting with Mr. Neilsen, who told him that Mr. Alvey Augustus Adee, who had been in the Diplomatic and State Department for forty-four years and was at the time, as he had been, indeed, for twenty-eight years, Second Assistant Secretary of State, was coming to Kristiania to take Mr. Collier's place at the Conference. "He is an able diplomat," continues Mr. Longyear's account. "From the samples of his correspondence I have seen, I have heretofore expressed the opinion that Adee holds his job through his ability to write a 'sounding' letter, which really says nothing definite. He was the first State Department man I got into contact with the first

*See p. 402.

†*Tom, Tomt,* Norwegian for *Vacant; tomte Rum,* vacant spaces.

‡Baron von Gagern negotiated for the purchase of the Arctic Coal Company and the Ayer and Longyear properties on Spitzbergen, and took an option to purchase them. This option was in force on August 1, when the Great War started, but nothing came of it. J. M. L.

time I went to Washington about Spitsbergen matters. It will seem odd to meet him here on the same business nine years later." But he did not meet Adee as the story will show.

The Crime of Sarajevo. Then he chronicles an ominous incident:

"While we are at the table, Dr. Simon, the German delegate, came along in great excitement and told us of the assassination of the Crown Prince of Austria and his wife."

He adds: "I suppose it will complicate the politics of Europe a good deal." As yet the coming storm was like a cloud only as big as a man's hand on the southern horizon, and the gayeties of the city went on undiminished and undimmed.

American Singing-societies. For two days the streets were rendered lively by the presence of representatives of Norwegian singing-societies. As a parade of them passed the hotel, Mr. Longyear noticed banners from Duluth, Superior, Brooklyn, and other American towns. All the singers wore white caps and swallow-tail coats. A parade was reviewed by the royal family at Slottet, or the Palace, the King and Crown Prince wearing the same kind of head-gear. A grand chorus of 2600 was advertised to sing at the Exposition, and Mr. Longyear wanted to hear one of the concerts. He was delayed and misdirected, and when he reached the Musikhalle no tickets were to be had—everything was sold, even standing-room.

Sangerkampen. "I found a door standing open to give the big crowd inside a little air, and I joined a crowd of a hundred or so of people who seemed to be in the same fix as I was. I saw a woman just inside the door selling programs, and I became one of the numerous purchasers, who passed their money past the door-keeper. This brought me beside the door-man, and I offered him two kroner to let me in, the price of standing-room being a krone and a half, but he held up his hands and refused. I could not see why he should not have taken it and turned it into the tresasury if he wanted to. I heard a few numbers, which seemed to be devoted to trying how low and soft a big lot of men could be made to sing.

Presently an official came along, and probably thinking we were getting too much free concert, ordered the doors closed.

"I then wandered around to the back-side of the hall, the stage-end. It was a solid sheet of boards and made a very fair sounding-board. I could hear much better there than at the door. At the door there had been a constant accompaniment by arriving and departing automobiles, and at the rear the accompaniment was the rattle of dish-washing and the culinary operations of the big restaurant which seemed to be furnishing the singers refreshments. After I had heard a few low-sung numbers I thought I had heard enough."

Fourth of July Celebration. The Fourth of July was celebrated in Kristiania with immense verve; there were receptions, dances and a baseball game! On the evening of the second Mr. Longyear saw a band of musical school-boys, dressed in red, white, and blue, marching toward the railway-station; a little later five of the finest carriages from the hotel, decorated with small silk United States flags, with a "bell-hop" in red-plum-colored uniform sitting beside each driver, dashed off in the same direction. Patriotism mingled with curiosity impelled him to follow them. The station was thronged with people awaiting the arrival of Louis Benjamin Hanna, Governor of North Dakota. The train was late; eleven o'clock struck; the boys were marched off and sent to bed; Mr. Longyear returned to the hotel.

Lincoln Statue Unveiled. On the morning of the Fourth a statue of Abraham Lincoln, presented to Norway by residents of North Dakota, was unveiled in Frogner Park. Thousands of visitors were present on the occasion. Many were decorated with small United States flags, and though they looked like Norwegians, most of them were speaking English. A band from Luther College, North Dakota, was playing. It was extremely hot, and only those near the statue could hear the addresses which were received with much applause.

"A puff of wind," says Mr. Longyear's diary-letter, "blew the flag off the statue a long time before the unveiling had been reached on the program, but the cheering and shouting

were as enthusiastic as if it had come off according to schedule. It was probably a disappointment to Miss Dorothy Hanna, Governor Hanna's daughter, who had come on from North Dakota to do just what the wind did. . . . The bust is of heroic size, standing on a granite base, bearing the word, LINCOLN. Two wings of the base have bronze tablets with inscriptions."

A Yacht-party. Colonel John Wellington McCulloch and Mrs. McCulloch had arrived in their big yacht and invited Mr. Longyear to be one of a luncheon-party on board, and he accepted, not sorry to escape the reception at the American legation, where thousands of Norwegian-Americans would make an unendurable jam. The party, including the Hannas, Mr. and Mrs. Guenther, relatives of the secretary of the American Legation, and relatives of the Hannas, and several others were in the party. Luncheon was served on board as the yacht steamed slowly down the fjord. They returned to the moorings after a three-hours' cruise, and reached the hotel about five.

The Arrogant Harbor-master. One of the festivities during this time was a regatta. The harbor-master ordered the McCulloch yacht to move, as it was in the way of the race. He is said to have taken some reporters with him to let them see him make the Yankees obey his orders. Some of the petty Norwegian officials, like those of other countries, are immensely fond of 'putting on dog,' especially if they have had a drink or two. This harbor-master had been out once before and talked with McCulloch about moving if it should become necessary, and after absorbing some of the yacht's bottled goods and cigars, had left saying that he would let McCulloch know if it became necessary. "When he came with his retinue of reporters and others," says Mr. Longyear's diary, "McCulloch had just gone ashore on some errand and Guenther happened to be there, making a call. Mrs. Guenther is his cousin and a nervous semi-invalid. She was much alarmed at the conduct of the harbor-master, and Guenther remonstrated with him for acting so before a lady, and suggested that

it would be well for him to remove his hat in her presence. As he did not do so, Guenther took it off for him and handed it to him. It was probably not a judicious thing for Guenther to have done."

The Norwegian newspapers made a great to-do about the incident, publishing a cock-and-bull story to the effect that McCulloch profanely and insolently refused, that the secretary of the American Legation was present and struck the harbor-master but could not be arrested for assault and battery as he was protected by his position as a diplomat. They were trying to make an international affair of the incident and demanded his recall. An accurate statement of the circumstances was furnished to the papers, but not one of them published it. This gave the Legation a good notion of the way the people of Norway treated the Arctic Coal Company. Mr. Longyear regretted the result that promised to cut short Guenther's career in Kristiania, and thought that if he were recalled, as he would be if the Government took the view of the incident taken by the press, it would be a decided loss to the American interests at the Conference, as he had been almost the only help Neilsen had had, while the representatives of the other nations were powerfully supported by able counsellors.

The Royal Banquet. In the evening of the Fourth occurred the great banquet to which Mr. Longyear had secured a ticket. Cabs were scarce, but he finally got a "magnificent limousine, evidently a private car which had been generously put into service to help people to get to the banquet," or had been taken by the chauffeur for a little graft on his own account. There was no way to open the windows, and "the car was a sweat-box on wheels." Coming in such state he was "received with great respect by all officials and attendants at the gates." His place was at a table about seventy-five feet from the King's, and his companions were Mr. Horace Gade and his wife, a bright young woman from Cambridge, Massachusetts.

"When the King came in," says Mr. Longyear, "every one

stood up until he was seated. The food was well-served, and everything went off well as far as I could see. It was tremendously hot. The enormous place was like a Turkish bath, and my collar soon collapsed. The meal was rather simple, of three or four courses and was served admirably. No small feat, for there were 2500 diners.

"After the meal there was speaking. Mr. Herman Gade was toastmaster, and acquitted himself admirably. He also made the best speech in English. The King made a little speech in very good English. The addresses that seemed to amuse the audience most were in Norwegian.

"It was all over about eleven o'clock. We stood outside for awhile looking at some fireworks in a distant part of the Exposition grounds. Then I followed the crowd out to the gates and found thousands of people there. When I got to the open square where the electric cars and cabs are usually to be had, I found the mob yammering for some or any kind of transportation back to town—a distance of two or three miles. I stood for more than an hour, trying to get anything to ride in, but without success.

A Long Walk. "There seemed to have been made not the slightest provision for handling the crowds except to turn them out of the grounds at midnight all at once. An occasional street-car came along, about as frequently as on ordinary occasions. They stopped anywhere within a hundred feet of me and I did not have the luck to have one stop where I could get to it before it was filled so they would let no more on. The actions of all the employees seemed to indicate that they considered the people their natural enemies. After a while it was evident that the supply of cars was decreasing, and word was passed around that the cars would cease running at one o'clock. I started to walk, as did thousands of others. I would stop occasionally at a station and wait in the hope that a car would come along, but none did. Whenever a cab or an auto came along, the street would be full of people waving their arms to halt it in case it should be free. They

were all stopped before I had a chance at any of them, until I got within two or three blocks of the hotel. Here there seemed to be plenty of cabs with nothing to do. It was a hard walk in pumps—two or three miles, and they seemed like ten—over cobble-stones or loose gravel.

I reached the hotel at twenty minutes of two, and caught the elevator as it was making its last trip. If I had been five minutes later I should have had the pleasure of walking up four flights of stairs. The best hotel in Kristiania stops its elevator after one in the morning!"

Nothing Doing. Mr. Longyear found that he could accomplish little by dancing attendance on a hermetically-sealed Conference, which was evidently going to come to no definite conclusions—since the decision of the American Government not to share in the financial arrangements for the maintenance of any form of control over Spitsbergen, and its insistence that the Archipelago should be a *terra nullius,* were as complete a block to the wheels as Germany's demand to be represented on the Council of Control.

Prince of Monaco as Mandatory. He made one excellent suggestion both to Dr. Simon and to Mr. Neilsen: that was to turn Spitsbergen over to the Prince of Monaco, and authorize him to organize and conduct the government of the Archipelago, "with the sole requirement that a fair deal should be accorded to every one." Prince Albert had frequently cruised in those Northern waters, making scientific observations, and knew more about the region than any other ruler in Europe. He would be more interested, as a scientist, in getting the natural resources developed than any one else. Mr. Longyear had received the idea after a talk with Mr. Burn-Murdoch, who said it had been first put forth by some Englishman.

Dr. Simon liked the notion, but thought that the Powers would not be inclined to adopt it. When Mr. Longyear remarked that there would not be enough politics in it, the canny German was much amused. Mr. Neilsen agreed with Dr. Simon, but made no reply when Mr. Longyear suggested that he should seize a chance to propose it.

5. LAST VISIT TO THE MINE

This seemed to Mr. Longyear a favorable occasion for making his contemplated trip to the Mine. A telegram from the Tromsø office informed him that the *Kwasind* was loading at Trondhjem, and if he started Sunday he might catch her. So he took the afternoon train on the 5th, and after an extremely hot and uncomfortable journey reached Trondhjem only to find that he was too late, and would have to take the mail-steamer the next morning. This gave him some time to renew old acquaintances. Herre Bohne had been very ill but was slowly recovering. Gustave Bohne, the son, took Mr. Longyear to the house, where he found the invalid sitting in a wheeled chair in the garden, and in good spirits.

Prosperous Trondhjem. Trondhjem seemed to be growing rapidly and very prosperous, with many new buildings: the hill to the west of the town, which had been almost vacant only a few years before, was well covered with handsome houses. The part of the city where the Bohnes lived, south of the river, had been all fields in 1907, and was now notable for its fine brick and stone residences. A big new hotel was building opposite the club, and on the site of the bank where in 1901 it took Mr. Longyear a whole afternoon to get a £100 draft cashed.

The *Richard With* was packed with passengers, and every stateroom but one had at least two occupants. Mr. Longyear thought he was fortunate to have paid a fare and a half to secure one to himself; it was about six feet long, wide and high.

Fine Weather and Scenery. Before he turned in, he had one last look through the natural tunnel in Torghatten Island, and the next day, with fine, clear weather, enjoyed the rugged scenery of the mountains where ice and snow were still glittering white. The wild coast of the Lofoten Islands was also at its best: "The wonderful, ragged sky-line is never dull, the peaks are too sharp for that. The rock is stratified, apparently a quartzite. The upheaval has set the layers on edge, and erosion has done wonders in the way of scenic ef-

fects, reminding one a little of the Garden of the Gods in Colorado. There are patches of a bright-green moss which has an almost phosphorescent luster. The sun was behind the ragged hills, which are about 2500 feet high, tingeing the light mist a bright pink. Our side of the hills was in varying shades of purple, depending on the distance between us, and the many patches and fields of snow, more or less tinted with the pink haze through which we looked, those farthest away having the deeper tones. The dark purples of the nearer slopes were punctuated by the patches of the wonderful lustrous green moss which is found here only.

Among the Islands. "At midnight we were at Lodogen, among the islands. The sun was glowing behind the hills to the north, but we could not see it, as we were in the shadow of them. We could see patches of sunshine in several directions, so we knew it was there."

For a wonder the journey to Tromsø was fair, fine and warm.

Tilled Slopes. "The ride during the forenoon, up the fjords and channels between the islands, was interesting and charming, although I have seen it many times before. The mountainous islands generally slope steeply into the water, and their upper slopes still have much of last winter's ice and snow which supply numerous cascades like ribbons of white lace tumbling down the steep ravines. Slopes which are not so steep but what a man can hang on with one hand and dig with the other, and which are composed of more or less soil, are occupied as farms . . . These slopes were bright green with grass almost ready to cut for hay. The occasional brown patches probably indicate potato-fields for next winter's supply. The sun was bright and warm, but the wind was keen, for it comes across ice, here, no matter from which way it blows."

Mr. Longyear arrived at Tromsø about noon of Thursday, July 9, and was put up at the staff-house, having outside his room a balcony giving an extended view up and down the fjord. He says the deed conveying the property described

the area of land attached to the house as "one and a half cow's feeds," equivalent to about four acres; but some of it was "set up on edge, there being a small cliff on the south side of the property."

A Motor-boat Excursion. While he was waiting for a telegram from Turner, so as to decide upon his plan, Gilson invited him to a motor-boat party, which included several others, one of whom was named Killingrin, a name to Mr. Longyear's mind worthy of a viking! Some of the party had never been out of Norway, but they spoke excellent English, and as an exception to the people of the Varanger Fjord region, of which some of their ancestors were natives, instead of being gloomy, solemn, and apparently rather stupid, they were as "lively and volatile as Americans."

The motor-boat was equipped with an American Simplex automobile-engine, and "scampered along at a tremendous pace." The engine, however, had been "fussed with" a bit too much and was a little out of adjustment, so that it took about two hours to make the tour of the island, as the engineer had to stop every little while to coax it to go.

"Troms-ø or Island," says Mr. Longyear, "is several miles long and perhaps two miles wide and say 400 feet high. The hills on each side of the fjord in which it lies are so much higher that the island looks low. It is covered with a forest of small birch-trees, except in places near the shores, where there is soil, farms have been made of from one-cow to four-cow capacity. The high hills—from 2000 to 5000 feet high, around the fjord, form a snow-clad belt all about the little green island."

On his return Mr. Longyear found the telegram from Turner giving him full information about steamers up.

Tromsø, like Trondhjem, was flourishing, and the houses were creeping up the mile of road toward the staff-house. Mr. Longyear again fell in with Mr. Koeppern, whom he had met in Kristiania, and was informed by him that Burn-Murdoch, Dr. Bruce, and a geologist were soon going up to Spitsbergen, and were proposing to cross West Spitsbergen by the

Sassendal route, which Sir Martin Conway had used, and was the first to describe in a book, though of course many hunters must have gone that way before his day.

The Munroe Out of Water. The next afternoon was spent in watching the operation of pulling the *Munroe* up on the slip at the ship-yard for repairs. The bow below the water-line had been badly "chewed" by the ice. The iron-plating which consisted of fifteen or twenty steel straps eight feet long, four inches wide and an inch thick, bent over the stem-piece, placed side by side and bolted on, were badly broken and some were torn off. A hole more than two feet high and half as wide had been eaten into the wooden stem, where the iron was gone and was oddly "broomed." The ends of the out-side plankings were pushed out by the bruised wood behind. The shaft was seriously bent, and had to be taken out and straightened. The vessel had run no danger of sinking because the stem was protected by several feet of solid timber.

A ship-railway was employed in dry-docking the craft: "A sort of car running on rollers on three tracks was let down into the water. The ship was floated over the car, between guides, the front end resting on the car. A winding-engine in the ship-yard then pulled the car and the ship up into the yard, very slowly inch by inch. It took about two hours to pull it up about 200 feet. By six o'clock the ship was high and dry in the yard."

The Noisy, Noisome Jernland. The *Jernland*, on which Mr. Longyear sailed to Advent Bay on Sunday, July 12th, was thirty-two years old and had no passenger-accommodations, so he shared the captain's room with the captain's brother. The room was over the propeller, and the ship went up in ballast; it was a noisy place, the blades revolving whirringly in mid-air when it was rough. Mr. Longyear comments humorously on the varied assortment of odors which the ship carried:

"These old ships have a great variety of peculiar and pungent smells which are offensive to my landlubber olfactories. . . . It is odd, too, that all old ships seems to have the same

CONCRETE AND STEEL BUILDINGS AT THE ENTRANCE TO MINE NUMBER ONE

BARRACK AT ENTRANCE TO MINE NUMBER TWO

smell for the main odor and then each one has variations of its own. This one has several of its own, and she is a nice ship but she is thirty-two years old, the captain tells me. So she is entitled to have some of her own. The *Munroe* is forty-two years old, and she has some combinations of whale-oil and fish-smells that belong to her alone. The curious thing about these ship-odors is that one does not notice them after the first day on board."

He found out also that ships had their particular gaits, compounded of resultant wave-motions and the form of the hull, so that each different ship required fresh practice in order to "get one's sea-legs on." This is probably the reason sailors call a vessel she, even if it be a man-of-war, or a mail-steamer.

The fog as usual shut off the view of Bear Island, and the captain had to steer by dead-reckoning. At eight o'clock in the evening of July 14, it was calculated that they were probably opposite Bell Sound, forty miles south of Ice Fjord. A shoal with only thirty or thirty-five fathoms extends about half way between the two fjords, and in foggy weather navigators bound North find this shoal by casting the lead until they get into deep water again, and know that they are at the mouth of the Ice Fjord.

The *Jernland* steered through the dense fog, which lasted until they were only a few miles from Advent City. Then the sun came out and shone brightly. They could see the peaks of the mountains back of Cape Boheman rising through the fog-bank, which was shallow and level.

Loading the Kwasind. Bryan, the book-keeper, came out in a boat and took Mr. Longyear ashore, bag and baggage. Turner was hurrying down to the dock where the *Kwasind* was partly loaded, with two cranes at work on the job. They took Mr. Longyear to one of the new single houses, built for a small family and never before occupied. After he had established himself, he went with Turner over the stock-pile, warehouses, and dock, and watched the process of loading the big turret-ship, which was going on as rapidly as could be expected with the rather crude apparatus still in use. "This

enterprise," he wrote, "is now just at the stage where, if it goes on, it must have a large equipment of mechanical devices for getting out and handling the coal on a large scale. The exploring and development stages are past."

In the afternoon at the regular hour they went to the wireless-station, and, getting into communication with Green Harbor, sent off various messages—one going to Brookline, Massachusetts, to Mr. Longyear's family.

Mine Number Two. The next day, Mr. Longyear went with Turner across the valley to the Number Two Mine. "During the Winter," he says, "an entry was made in the coal, 400 feet long and ten or twelve feet wide, the thickness of the coal being about four feet, all perfectly clean with no "bone" in it. It is really a very handsome showing for a mine. A house has been built on the foundation I saw last year. The house is about fifteen by thirty feet in size, and all the lumber was carried up the hill by the men who did the work in the mine. Each day, as they went to work, they would carry up some of the material until it was all up. After the house was finished, they moved in and lived there until their contract came to an end. The house stands only a few feet from the entrance to the mine. It and the dump are conspicuous objects in the landscape on the side of the yellow-gray hill.

A Lost Watch. "Scott lost his watch somewhere on this trip, and a careful search over all the ground we had been on since he knew he had it failed to find it. He thinks it must have fallen into the coal-dump when he was climbing over it, and the coal falling down the steep slope as he walked about on it, covered it up.

"We went to the end of the entry, 400 feet, and it was a hard road for me to travel, for it was in no place more than five feet high and generally was only four feet. For more than a hundred feet from the entrance the floor had from one to two feet of ice on it, and the roof was covered with frost-crystals, like feathers, over an inch in length, which had a way of getting brushed off by my hat and lodging on the back of my neck. They were very beautiful to look at, but they made one

realize what a cold world this is sometimes. Scott missed his watch after we had come out, so he went back to the end of the entry to look for it, but did not find it."

Dredging the Dock. In the afternoon they watched the dredging alongside the dock. This was done with a clam-shell grab-bucket, rigged on the end of a boom and swung out while operated by the winches of the *Kwasind*. The grab-bucket was lowered to the bottom between the ship and the dock, and was lifting out the rock which had been deposited by the great October storm already mentioned. Then the contents, lifted above and across the ship were dumped into the deep water on the other side.

Arrival of Johan Anker. A little later in the day, Johan Anker and his Green Harbor engineer, Bay, arrived in their boat, and spent some time in arranging about taking over the Green Harbor property on which he had the option. The two men were personally conducted around the works for a while, kept to supper, and got the business arranged to mutual satisfaction.

The next morning, Hoernicke, the young Russian engineer whom Mr. Longyear had met in Kristiania and refused permission to examine the mine, came at the instance of Baron von Gagern in regard to a scheme for the alliance of Russian and German interests, and the possible purchase of the American possessions. Mr. Longyear had received a wireless from the Baron asking this as a special favor, and as it did not seem as if he could do much, if any, harm, he received him and let him make the examination.

Hoernicke brought with him four other Germans, one an engineer from the works of Bleichert and Company, of Leipzig. "Several of them," says Mr. Longyear's account, "talked as much English as Turner and I spoke German. They wanted to send their motor-boat over to Sassen Bay, and asked if we could give the five of them a place to sleep. As there was vacant room enough we took them in. Hoernicke came first and made the arrangement. After Scott told them that we could put them up Hoernicke asked to see the place where we were to

put them. This amused us, for it was the only place there was, and if he did not like it we were unable to see what he could do about it. He probably wanted to make sure that the place would be endurable before he let his boat go.

"We quartered three of them in a little house next to and like the one I am in, and the other two were put in the staff-house. Hoernicke seemed much pleased with the accommodations and sent for his companions at once. He and two of the others say they are coal-mining engineers; one is a harbor-engineer, and the Bleichert man was the fifth. We had shown Hoernicke the mine-maps and other things before the others arrived, and were starting to show him the layout of the camp when they joined us. We showed them houses, barracks, storehouses, machinery, etc., until some of them looked tired. We wound up at the dock, where the *Jernland* had just been placed for loading, and we saw the first few tons go into her hold.

Difficult Conversation. "We had a lot of difficulty, often, on both sides, in trying to make one another understand what we were trying to say. We had some fun out of it, and we frequently found that there was an advantage in having so many around, for some one in the 'bunch' would catch the idea and communicate it to the others. So we seemed to get along all right; but I dare say that if we could really know what they sometimes understood it would give us 'quite a jolt'! They all seemed to be willing to stop looking at the layout and go to lunch, and we all ate like dockwallopers!

"The *Kwasind* got away during the afternoon, and good progress was made in loading the *Jernland*. Scott took the Germans, or three of them—the coal-mining contingent—to see the new opening on the other side of the valley. I remained in the camp and watched their little black specks crawl along up the zigzag trail; this was much easier than being with them. Bleichert, as we call him, and the harbor-engineer spent the afternoon looking over the tramway. Bleichert said he would write us a report, telling us how we can get along with fewer men, but as he does not know how many men we work

on the tramway this struck us as a funny proposition, but we hope he 'makes good.'

THE WATCH FOUND. "Scott and the expedition to the Number Two Mine returned to the camp soon after six o'clock. The principal incident of the trip was that Scott found his watch. It was near the entrance to the mine. It had fallen on the ice, and being warm, just out of his pocket, it had embedded itself in the ice, and, after it had cooled, the ice closed about it so that it was necessary to use a pick to get it loose. It was apparently none the worse for its temporary aberration."

THE GERMANS' SUPERFICIAL EXAMINATION. The next morning Hoernicke and his friends made a trip into the mine, but instead of following the itinerary which Turner had planned, and which would have given them an excellent idea of the property, they decided, after seeing about a half of it, that they had had enough, nor did they return to the mine after luncheon, but made their preparations to depart, their little steamer having returned for them at noon. Their examination was so superficial that Mr. Longyear and Turner decided that either they did not know their business or that they were mere seekers after information, "trying to get the benefit of the experience the Company had gained by the expenditure of the time and money that had been lavished there." It looked as if their visit would not be of much benefit to their employers, but they had a good time.*

THE RUSSIAN COMPANY. It was significant that Turner had discovered, when he was last in London, that the "Russian-Spitsbergen Company" of 6, Petropavlovsk Street, Petersburg, apparently managed by a German named P. P. von Veimarn, had applied to the Sullivan Machinery Company for a complete mining-equipment, which should be "an exact duplicate" of that of the Arctic Coal Company. But he had not been able to learn whether this company was the same as the "Mining Company Grumant," whose notices had been put up on the Arctic Coal Company's territory. He had also found

*See p. 402.

out that the mysterious word *Grumant* was "a collective term for Spitsbergen and Northern countries."*

Taking Photographs. While the strangers were making this absurd bluff at examining the mine, Mr. Longyear went out, and during a four hours' tramp took a number of photographs of all the principal localities, so as to complete his collection. Among them were the new concrete buildings at the mine-mouth, a bird's-eye view of the camp from the trail south of the mine, and a panorama of the camp as it then was to compare with others taken in previous visits.

The *Jernland* was fully loaded by nine o'clock in the evening, and Mr. Longyear, accompanied by Bryan, who was going away for a two weeks' vacation, the first he had taken in two years, went aboard, and by ten o'clock was off for the South.

Twelve hours later the lower part of the Spitsbergen coast near Bell Sound was in plain sight about twenty miles to the east, the upper part of the mountains covered by a dense fog which hung perhaps a thousand feet above the sea, its lower surface as level as the surface of the water, and showing just a horizontal slice of this coast which was still visible till late in the afternoon.

The sea was so calm and the day so bright that the *Jernland* reached Tromsø at three o'clock in the afternoon of July 21, several hours earlier than she was expected.

The captain of the *Munroe,* warned by the blowing of the whistle, came out in a row-boat and took them ashore, while Saether in another boat brought in ten of the winter men who had come down on the steamer. The *Jernland* then proceeded to Narvik with her cargo of coal.

Serious Repairs. It was expected that the *Munroe* would be put into the water the next day. The inspectors had speci-

*Dmitri Dahl's great Russian dictionary defines *Grumant* as Spitsbergen, without any qualification. Mikhelson's "Dictionary of Thirty-thousand Foreign Words," published in Moscow in 1872, make no mention of it, but defines *Grumalant* as *Promuishlennik, zimuyúschy na Shpitsbérgenye,"* a hunter (or fisherman) who winters on Spitsbergen. Grumanlant is evidently a corruption of the Norwegian Grønland, Greenland, as Spitsbergen was for a long time believed to be a part of that country.

LOADING STATION AT MINE NUMBER ONE

CONCRETE BARRACK, LONGYEAR CITY

fied a new tail-shaft and various other improvements, and the repairs had been more serious than had been anticipated. Anywhere else than in Norway the work would have been done much sooner: Mr. Longyear says it was enough to make one cry to watch the ship-yard people work: "Efficiency is unknown here." Gilson was at Tromsø expecting to return to Advent Bay on the *Munroc,* which was eagerly awaited. Mr. Longyear says: "It will relieve things mightily up there to get the old craft going again. She is almost our only dependence in carrying supplies and men. The cargo-boats do all they can for us, but they are not arranged for the business, and there is not a ship in Norway or anywhere else that we know of to take her place."

On the Midnight Sun. When Mr. Longyear went to the *Billetkontor* to get booking for himself and Bryan for Trondhjem, the agent was struck by his companion's name and asked if it was the American Secretary of State. He was at first minded to say, "Sure," but was afraid that he could not "put it across." It would have given them great consideration on board *Midnadsolen.* This coast-steamer started at one o'clock, most of the office-force gathering at the dock to see them off. By paying a fare and a half the two men had each a room to himself.

A Prophecy. Mr. Longyear spent a considerable part of the afternoon writing up his memoranda, most of which he says, would "be of use when we come to write the book which I expect to get up on the history of the first development of the resources of Spitsbergen. The industrial conditions are very peculiar, and it can some time be made interesting reading. There seems to be 'more kinds of hell' in it than would be possible anywhere else as far as I know. There are a good many good men there of several different nationalities, but we get enough of 'the scum of the earth' to keep things stirred up all the time. This seems to be a characteristic of all the new mining-regions with which I have been familiar, but this place has features that no other that I know of has. Its inaccessibility for nine months every year is one mighty important one that

calls for great strength of character and poise on the part of the men on whom the responsibility falls. Every resource of mind and strength is called upon during the long Winter. More or less insanity crops up in the long dark night, and gruesome things happen . . . The mentality that can come up smiling in the Spring, as most of our staff do, impresses me as being a strong and reliable one. An industrial enterprise in the Arctic is no joke."

6. HOMEWARD BOUND

Changing to the train at Trondhjem, where he had time to make a few calls he and Bryan reached Kristiania at noon, July 26. He found the Conference still sitting, but Mr. Neilsen, with whom he had a long talk, was evidently getting very weary of it all. He also saw Mr. Schmedeman, and informed him of what he had found on Spitsbergen. As there was no reason for his remaining longer, he engaged passage on the Hamburg-American liner *Cincinnati* (the same ship he came over on), and left for Hamburg late in the afternoon of the same day, his partner in the compartment of the train being a young German. Mr. Longyear had just heard the portentous news regarding Serbia and Austria, and remarked that he hoped that war would be avoided. The German, who was a pleasant traveling-companion, replied that he was afraid that when he reached his home he should find a telegram summoning him to his regiment, and added in a typically cynical Prussian spirit, "What do I care about Serbia? If we have to fight and lose a lot of our men, it would be better to hang all the Serbians there are: then they would not get us into such trouble again."

War-excitement in Hamburg. When he reached Hamburg on the 27th and had retired for the night, he heard singing and shouting in the street below his window. He looked out and saw crowds of young men marching by. The excitement seemed to be concentrated in a restaurant opposite the hotel. In the morning he asked the portier what it was all about, and was answered, "Students, fools, war-excitement."

He occupied a part of the day by riding round the city

on a colossal sight-seeing automobile, which carried sixty passengers. He saw miles of handsome residences, was taken to the entrance of the double-barreled tunnel which runs under the river about a hundred feet below the surface, the walls made of white, enameled tiles, and brilliantly lighted; and then the party rode up and down the river on a steamer "in the midst of busy scenes, ships, big and little, ferries, launches, lighters, ship-yards, dry-docks, floating-docks, warehouses and the like."

He saw the great liner *Bismarck,* recently launched, and receiving her last finishing-touches; also a turret-steamer almost exactly like the *Kwasind.* On the way back to the starting-point they passed the colossal statue of "the man of blood and iron." It was about sixty feet high and built up of huge blocks of stone afterwards sculptured.

The *Cincinnati* left Cuxhaven at half-past ten in the morning of July 29. The passengers were all talking about the possibility of war: "The sentiment seems to be, 'The pity of it,' and hopes are expressed that peace may yet come out of all the turmoil."

Declaration of War. On Sunday, August 2, Cardinal O'Connell of Boston, dressed in gorgeous robes, conducted an early morning service, but it was attended by only six or eight persons. At luncheon a printed bulletin was distributed giving the latest news, received by wireless. Among the items was that announcing the declaration of war between Germany and Russia, and the mobilization of the entire German army:

"The people of the crew are evidently much excited," says Mr. Longyear, "for nearly all of them belong to some branch of the service, and will be called to their posts as soon as they can get to them. If there were any Russian cruisers in this part of the world we might be in danger of being captured before we get to Boston. If her allies, France and England, decide to go in with Russia, we may be captured yet. It certainly adds to the interest of a trip across the Atlantic to think that every time you see the smoke of a steamer it may be a cruiser coming to take the ship you are on."

For eight hours the *Cincinnati* headed for the Azores, the captain having received orders before he started to run to the nearest neutral port in case of war; but when the ship got in touch with the wireless station at Punta Delgada he found that there were hostile cruisers there, so he turned the ship toward Boston. One of the directors of the Hamburg-American line who happened to be on board got a special message on the 3rd to the effect that the French had just taken over one of their liners: "If that is so, it probably means that France will pitch into Germany on the west while she is busy with Russia on the east. It looks like busy times for Europeans, all hands around, in the near future."

Wireless Curtailed. The wireless office was closed, and the passengers were informed that no private messages would be transmitted. News came that some skirmishing had taken place between the Germans and Russians, and that France was mobilizing her armies. Then, in the evening of the 3rd, the library-steward, "in a state of almost dancing-excitement," informed the passengers that war was declared between Germany and France.

In Darkness. At night the ship ran without lights; the canvas curtains usually in service only in heavy weather were down all around the decks; the windows of the smoking-room, the social-hall, and other public gathering-places were covered with heavy curtains; only one screened light on each deck was allowed. The weather was fine and bright, and there was no special danger of collision with other ships as she must have been visible for five miles. Passengers were requested to use their state-room lights as little as possible, and not to leave them on. Most of the port-holes were covered with "dead-lights." Mr. Longyear, who had been disappointed not to get an outside room, now found an inner room advantageous: he could keep his lights burning.

Dodging Enemy Ships. On the 4th at one time a little smoke was seen toward the south, and the ship's course was deflected in the other direction. The American passengers wondered what would happen to them if one of the British

cruisers said to be in Canadian waters waylaid them. On the evening of the 4th, a cloudless sky with a bright moon shining attracted many to the top-deck. Mr. Longyear noticed that the pole-star was well over the after-quarter, and this seemed to indicate that the ship was running for some southern port; he came to the conclusion, however, that there was probably nothing to any of the passengers' surmises, yet they helped to while the time away. The usual dances having been discontinued lest the lights and music might inform some enemy-ship of their whereabouts, the hours seemed to have more and longer minutes in them.

Excited Passengers. Toward evening of the eighth day they ran into a thick fog, but the steamer did not blow her whistle or slacken speed. Some of the passengers became nervous and urged that a protest be made to the captain. . Mr. Longyear tried to calm one excited woman by telling her that he thought they were running no risk, that there was not one chance in a million of colliding with anything, since the fog was not very high above the water, and the lookout in the crow's-nest could see anything that stuck up more than twenty feet. All his sympathies were with the captain in his efforts in trying to save his ship. It was reported that two German cruisers on their way home from the West Indies had passed them during the day.

On the 6th a bulletin was posted stating that Germany had declared war on Belgium. A flying-fish was seen, and it was taken to signify that either the fish was fleeing from the danger-zone or that the ship was farther south than had been supposed, and in the Gulf Stream. No other vessels had been seen for some time. Wireless despatches were occasionally received; one was to Cardinal O'Connell from the Boston "Globe," stating that his friends were becoming anxious about him. Another was from a German oil-steamer inquiring for news and asking for advice as to what her captain ought to do. The *Cincinnati* advised him to go to the nearest neutral port and stay there; but no reply was vouchsafed to the question who was giving the advice. That was the last wireless message sent.

Farewell Dinner. The usual "farewell dinner" was given on the evening of the 7th: every one dressed for it, and the excitement in the air made it lively. In the morning the fog-horn was blowing, so the passengers knew they were within three miles of the coast. A piece of amazing news was bruited about in the morning: that the Germans had suffered heavy losses at Liège and had asked for an armistice, that the Crown Prince had been dangerously wounded by an assassin, that the Kaiser had issued a proclamation defying the world, and that the United States was sending a fleet to bring home stranded Americans.

They reached Boston safely in spite of having run through the fog without slackening speed or, until within three miles of the coast, sounding the fog-horn. The newspapers had been publishing columns about the uncertainty of the *Cincinnati's* arrival, and one of the first things Mr. Longyear noticed after landing at ten o'clock in the morning of the 8th was a newspaper with *"Cincinnati* Arrived" in big red letters.

7. END OF THE SEASON

The outbreak of the War put an end to the Spitsbergen Conference. The representatives of the Powers took a recess on July 28 in order to give their respective governments time to examine the results of the labors of the Conference. It was the general opinion that the German contention for participation in the Board of Control and the opposition of Sweden and Russia would have in any case prevented their coming to an agreement. It was predicted that at the end of the War the victorious nation would either annex or attempt to annex Spitsbergen.

Conditions in Norway were materially altered. Turner had come down to Tromsø, and kept the Company informed regarding the exigencies as they arose.

Collapse of Credit. Spitsbergen coal was the only coal coming into Norway, and was likely to be of the greatest importance to the navies of the belligerent Powers. He was apprehensive lest the Norwegian Admiralty might seize all their

PANORAMA OF LONGYEAR CITY, MINE NUMBER ONE, ETC., IN 1914

coal on delivery. In the first panic all credit collapsed in Norway, English exchange became valueless; the Company's checks on Trondhjem were refused payment in Tromsø, and were not honored in Bergen; current cash had disappeared. Except for a few thousand kroner in the safe at the office the Company had no funds available. Everything had almost doubled in price, but fortunately practically all their staples had been bought and delivered, and Turner thought that they could get through the Winter without much trouble. The customs had commandeered twenty barrels of kerosene on its way to Spitsbergen, and Turner wrote that he expected that all the food-stuffs in Norway would be seized and issued from government warehouses, the country being "in a very bad way regarding stores of such supplies."

Contradictory Orders. The Nordenfjeldske Company, after successively, within twenty-six hours, telegraphing to have their consignment of coal delivered by the *Jernland* at Vardø, at Svalvær, at Kirkenæs, and then again at Svalvær, ordered it sent to Trondhjem. The *Kul*, on her way North, was ordered to be sent to the Bergenske Company at Tromsø. Halvorsen was keeping all his ships in Norway, but Turner brought pressure to bear upon him and he consented to further trade on the stipulation that it might be discontinued at a moment's notice in case Norway were drawn into the European entanglement.

Rumors were afloat that the Russians had taken possession of the Advent Bay mine, and while Turner did not credit it, he knew that such a move was possible on the part of any of the powers. Kristiania was considering it and Germany might be.

Coal to Be Refused. He ordered the management at Advent Bay, in case any Russian, German, English, Austrian, or French vessels appeared, to refuse, no matter what might be offered or threatened, to supply them, on the ground of its being neutral American territory, for, as he wrote, "any other action might be construed as an overt act of hostility to other nations, whereupon the neutrality would be destroyed and our

coal and property become a legitimate spoil of war. Should an overwhelming force land," he continued, "and in the name of a Government or Power take possession of the coal, you of course will have to accede to their demands, at the same time pleading American property, neutral territory, and protesting in writing to leaders of such an expedition. Then keep track of all coal taken, and we shall later be in a position to demand redress of the Power."

After the first wild rumors had subsided, the shipping-situation became easier in September, and Turner wrote that "British tonnage was moving with a fair amount of freedom on the usual mercantile routes. The action of the British Government in backing the mutual insurance clubs was having a steadying effect in underwriting war-risk insurance, and although business was of a hand-to-mouth kind, only prompt business being considered, still, rates were good. Turner resolved to keep on as long as possible in getting the coal down from Advent Bay, but the mates from many of their ships had been mustered into the government-service, and the ships were running short-handed. The last collier went North on September 10, and returned within the time-limit set by the insurance companies.

8. THE KWASIND IN CHARTER

The *Kwasind* was at Spitsbergen when the declaration of war by England against Germany was announced, and a wireless was immediately sent to hold her there; but the message arrived too late—she had sailed on the 4th. Two German cruisers were at Honnigvaag, four were on the Murman coast; it was rumored that others had been seen steaming North toward Spitsbergen. She was in imminent danger of becoming a prize of war. Turner telegraphed to the Company's representatives at Newcastle asking if it would be possible for her to sail under the United States flag, and received word in reply that she was insured for "safe trade" under Norwegian war-risk. Then came a message advising that the war-clause of the insurance devised by the North of England Protective

and Indemnity Association should be strictly followed: this was that a ship sailing from any port unwitting that a state of war exists, the captain knowing nothing of it and out of reach of information, is insured until she reaches the first neutral port and for thirty days thereafter, provided she does not leave that port. The *Kwasind* would have had to run to Narvik and tie up there until the end of the War. Two hours before she passed through Tromsø harbor another cablegram arrived from England, stating that she was provided with insurance in the Spitsbergen trade provided she did not run south of Tromsø. She was stopped just in time, and Turner arranged to have her cargo received by other customers at Hammerfest.

Kwasind, a Problem. The question then arose what should be done with her after her cargo was discharged. Had she been sent to England across the North Sea her insurance would have been sacrificed, and there would probably have been no business for her there. He proposed to the Boston office to fill her bunkers with Advent Bay coal, put in a thousand tons for ballast and reserve, provision her for a month, and send her by the northernmost route across the Atlantic to Boston, where under the new regulation permitting foreign-built bottoms to be registered by American owners she might ply between American ports or from Canada to England under the United States flag.

He made this suggestion with due modesty, remarking that "a layman's opinion would be found of very little value in this regard as there are so many twists and turns in the shipping-business, especially when the business involves shifting a ship from one flag to another, shifting her insurance, securing a new crew, and putting her in a new trade; since it was quite probable that by making such a move all her British insurance would be at once nullified; also it might be that she would have to be re-classified and re-certificated throughout in America by American Registers of Shipping and Board of Trade, and all this would involve dry-docking and examining her hull, opening up her engines and machinery and the like."

Restrictions on Correspondence. Turner advised the Boston office that all kinds of correspondence was greatly restricted: in telegrams and cablegrams no code-words or abbreviations were permitted, and signatures and addresses were required in full. All messages were censored in England, and such cablegrams as did not strictly conform to the regulations were returned to the senders.

The Norwegian Government followed suit in issuing an order that no code-messages should be handled to or from Spitsbergen. Turner, who was not informed of it for a month, thought this an absurd rule, as none of the reasons for such restrictions that held in other countries applied in this case, and the business of the Arctic Coal Company was the only one handled at Green Harbor during the Winter. The charge of a franc a word in long hand was so exorbitant that in order to keep to their projected economy-scale they would have to cut out their comparison-accounting and their reports of the monthly tonnage mined. If they did have it cabled the information would be transmitted by the wireless operators at Green Harbor, who already had the English A. B. C. code-book and evidently translated the Company's messages; for when Turner substituted the Bedford McNeill code they asked Bryan why the change was made and what was the new code. Simple inquisitiveness perhaps prompted the question but probably not.

Kwasind Chartered. The Company cabled that they had no immediate use for the *Kwasind* at Boston, and left to Turner's discretion the means of getting her into profitable and not too perilous trade in European waters. When she got back to Tromsø he placed her for three months under the new joint war-insurance divided among the private clubs and the British Government, and sent her on September 9 to Umba in the Russian White Sea for a cargo of deals, boards, and battens to transport to London. Lest objection should be made by the Russian Government, he telegraphed to the Minister of Finance at Petrograd for permission to load this cargo, and applied to the British Minister to expedite the matter. As always he was alert to provide for every emergency.

Escapes a Hurricane. Permission was granted and the *Kwasind*, with a cargo of 998 standards, reached Tromsø on October 5, having been delayed two days by a hurricane in the Arctic Ocean which carried away her steering-chains but did no other damage. Her deck-cargo was intact. She was luckier in her battle with rough weather than two other vessels which left the White Sea at the same time: one went ashore on the coast near Arkhangelsk, the other had her whole deck-cargo carried away.

Profitable Trips. The *Kwasind*, after being held for a day to have some repairs effectuated in her boilers, sailed for the Shetlands, thence to Peterhead on the northeast tip of Scotland. Hugging the coast she reached the Tyne, where she bunkered and proceeded to London. After discharging her cargo of lumber, she took for Havre a cargo of coal at seven shillings and six-pence, regarded as a very high rate, and returned to the Tyne again in ballast. The exceptionally advantageous, though of course risky "short trades" to French ports, made her trips very profitable. Turner got word from England that there was a chance to sell her, and cabled to Boston for instructions. But the inevitable delays caused by their long-range exchange of telegrams wasted several days. When Turner got word to sell, he wired to England and got the reply, "Too late; order filled." He thought that there might be other offers, but wrote to Boston that it might be a good time to dispose of the vessel in America under the new shipping laws and the increased demand for tonnage. Fate had another career for her in store.

9. TRANSFER OF THE MUNROE

The *Munroe* left Tromsø for Spitsbergen on her last trip for the season on September 30. She was not in very good condition, having suffered considerable weather-damage both ways on the voyage before, by reason of rough seas. Returning miners had brought suits against the Arctic Coal Company aggregating damages of more than 75,000 kroner (about

$20,000); judgment, together with all costs, would most probably be rendered in favor of the plaintiffs; many other cases were threatened, for it was becoming "increasingly popular with all people in Norway" to sue the Company, in view of the attitude of the courts. The only way to cheat certain attachments of the vessel, and as Mr. Longyear expressed it, "to whip the devil around the stump," was to transfer her to other ostensible owners. With this purpose in mind, arrangements were made to transfer her to a citizen of the United States. Turner was duly appointed manager for the new owner, and was given a properly-executed power of attorney, authorizing him to act in all matters pertaining to that vessel.

New Registry-Papers. The United States Consulate made out a certificate to that effect which constituted the registry-papers of the *Munroe*. This operation nearly came to grief because the bill of sale described her as being of 237 1/100 tons net, and 396 tons gross capacity, whereas the changes in her cabin and deck-space made since that original measurement had increased her tonnage to 298 net and 433 tons gross capacity. The Government was very particular about such figures, but after some hesitation at the Consulate the difficulty was overcome by the Consul's correcting these figures in ink, initialing them and writing an explanation of his action to Washington. Type-written copies were certified to by the Consul and deposited according to law in the Foreign Office at Kristiania; in order to put the matter in entire good order three new documents were executed at the Boston Office and sent to Turner to deposit where they were required. Lloyd's Registry and the Norwegian Veritas were also informed of the new ownership. This effectually prevented the steamer's being seized and sold to satisfy court-judgments.

The *Munroe*, with a big load of supplies arrived safely at Spitsbergen on October 6, two days late. Turner felt anxious about her, as, if she had met with disaster, it would have meant a loss of 200,000 kroner, and an almost forlorn hope of replacing her and reaching the island with a second cargo. He wrote from Tromsø:

Big Chances. "The ship is really not safe for the trade, as she is forty-two years old and rotten above the water-line, and we take big chances every time we put men and goods on board her, especially after the middle of September, when the bad weather begins."

She returned to Norway October 11, bringing ninety men and a small cargo of coal. It was remarkable that she should have got away safely because the Winter freeze-up had come on August 18, earlier than usual. Turner had word that the works, in consequence, were short of water. A pumping-station had been improvised in the valley with the old boiler from the pile-driver and an old pump discarded from the *Kwasind*. This helped remedy the scarcity.

Expeditious Work. On the whole, he was well satisfied with the season's work. The stock-pile had been entirely cleaned up, and so expeditiously had the colliers been loaded that at one time there had been less than 100 tons of available coal. On some days 2000 tons had been put on board. Every cargo had been promptly delivered. In six weeks more than 40,000 tons had been transported to Norway and sold. The equipment at Advent Bay had never been in better shape and the organization never more efficient. "No trouble of any kind had occurred during the whole year; no acts of violence and no moves threatening the safety of life or property were made by any one. Law and justice were administered, and whatever restraint or pressure was necessary was furnished by your officials on the island," wrote Turner with justifiable pride.

The Lost Lenore. The little tug *Lenore,* which had been brought across the Atlantic on the strong "shoulder" of the *Kwasind,* and from which so much usefulness had been anticipated, had entirely failed in her obligations.* Her boiler was suffering from heart-disease. It had been patched up, and

*When the *Lenore* arrived at Advent Bay she was launched from the "shoulder" of the *Kwasind,* but the work was bungled, a line fouled her propeller, bent the shaft, and tore away the rudder-shoe, making extensive repairs necessary in the midst of the busy season. She was found to be out of order in other ways, and it was weeks before she was used at all. She did not run a hundred miles in Spitsbergen waters. J. M. L.

she managed to wheeze across to Green Harbor. There it broke down, and she had to be towed back, and it was found that she could not be used again until many repairs were made or a new boiler was installed.

Hoover Asks for the Munroe. After the *Munroe* was put out of commission for the Winter, her engines disconnected, her equipment landed, and her crew disbanded, Turner received a telegram from London asking the use of her in carrying supplies of food for the Belgians under the Commission organized by Chairman Hoover, acting for the American and Spanish Ambassadors. He was obliged to reply in the negative because she was in no shape for such service and no insurance could be taken out for her if she were. She was poorly-designed and equipped for such use, was not of draft suitable to enter most of the ports on the east coast of Belgium or the north of France, and if she were lost she could not be replaced, and that would cause great difficulty in reaching Spitsbergen July 1, when the first ship was to be sent up.

Regretfully Refused. On the other hand, Turner realized that the Belgians were in dire need, and he thought it would be fine to do something to help them; but he felt sure that as soon as the needs of the committee were known suitable vessels would be forthcoming which would give them much better satisfaction than the *Munroe* could.

In his letter relating these circumstances he went on to say:

Turner's Account of the Munroe. "The fact is we are quite at a loss to know what to do with the *Munroe*. We have been forced to the opinion that it is not safe to transport men in her in the Fall, as she has now reached a point where she is rapidly disintegrating. She was on the slip twice this Summer, but now is leaking so badly that she will have to be pumped out three times a week to keep her afloat this Winter. When I came down on her the last time she encountered very heavy weather indeed, and was very badly strained; the captain and chief engineer had doubts as to whether she would get through, as she was leaking so badly that all her pumps would not handle the water, and she was pretty heavy when she finally

came into port. Her next trip up she ran into a hurricane, and was badly strained again. From what we can see and deduce, the bolts holding the old planking under her new ice-sheathing have given away and pulled out of the old rotten ribs, so that her seams are opening up, and she is losing all her stiffness. New bolts (500) were put in the old planking before the last lot of ice-sheathing was put on by Burrall just on her bottom, in the Winter of 1908-1909, but the first lot put on in Tønsberg in 1907 had no new bolts under it. This is probably where the failure now is.

"Calking the ice-sheathing will not remedy it, and the only way would be to rip off all the upper oak sheathing, re-bolt the old planking to the ribs, plug the nail and spike holes in the pine planking, and put the ice-sheathing back on again. This would be very expensive, and in view of your present plans not justified. On the other hand, either she must be repaired in this way or else be condemned and abandoned—there seem to be no alternatives, except to sell her and 'pass the buck' on to the new owner. We have never been able to get an offer of any kind for her here. If you have any idea that you could find a purchaser, we recommend that you try at once, before she is too far gone."

By putting in an extra pump he thought she might be used in the Spring, but in the bad Autumn weather, as she was straining and working in every joint, it would be very risky to send her up to Spitsbergen.

A cablegram from Boston read:

Winter-Arrangements Made. "If advisable, shut down and sell supplies." Winter-arrangements, however, had been all made. Food-stuffs and other supplies were sufficient for the Winter. The crew that had gone up consisted of 120 men, half the size of the force working there the year before. Turner wrote that this number was too small for proper economy in overhead charges, but would be sufficient to carry on fairly well-balanced mining-operations. The organization on the Island was excellent, and he thought that this crew should get as much coal during the Winter as the crew of

209, working there in 1912-13, or the crew of 235 in 1913-14 got. "This," he said, "would be on account of the mine's being better opened up, the organization in better trim, and the exploration, development and construction-work's being stopped." The miners were the most carefully-selected lot of men that ever over-wintered there. He thought that the operation during the Winter should make them "absolutely certain of what the property could do in the way of production per man."

Unless the mine were seized by some hostile power he thought it would not be feasible to change their plans except at very heavy financial loss." The Norwegian banks had resumed business as before the War, and there was no further difficulty in procuring funds. So the matter was left.

XVII. CORPORATION CHANGES

1. OUTWITTING THE HOSTILE NORWEGIANS

DURING Mr. Longyear's brief stay at the camp in July, and on his return to Tromsø, he and the staff evolved a scheme for outwitting the Norwegian authorities in their persistent efforts to get control of the Company's affairs. As Turner wrote in a letter to Boston, "The attitude of the Norwegian Government, press, and public, remains hostile to your interests, as has always been the case. Norwegian officials have done everything possible to make operations difficult for you. The Norwegian Government at Kristiania now furnishes a lawyer free of cost practically to any one who cares to institute suit against you, and we have never as yet had a ruling or decision in our favor in the Tromsø courts, regardless of right, justice, or equity. The open and flagrant bias and prejudice of these courts in North Norway is something difficult for you in America to realize or understand, and in fact, it seems incredible that such things could exist to such a marked extent in any civilized country."

A LEGAL TRANSFER. The Company took legal measures to withdraw entirely from Norwegian jurisdiction. The first step we have already indicated: the *Munroe* was now owned by a citizen of the United States, and was no longer in danger of confiscation. The second step is shown by the following agreement, executed on October 1, 1914, between the Arctic Coal Company, "a Corporation organized under the laws of West Virginia, having its principal offices and place of business in Boston, Massachusetts, and Ayer and Longyear, a partnership, of Boston":

"WITNESSETH, That, Whereas said *ARTIC COAL COMPANY* is indebted to *AYER AND LONGYEAR* for certain sums of money advanced to it by said *AYER AND*

LONGYEAR, and whereas it is mutually agreed that the said indebtedness shall be reduced in manner and form herein mentioned:

"*NOW THEN, ARCTIC COAL COMPANY* hereby leases to *AYER AND LONGYEAR* for a period of one year from the date hereof, all its mines, installation, equipment, and everything pertaining to the mining and shipment of coal, now situated at Advent Bay, Island of West Spitsbergen:

"*AYER AND LONGYEAR* agree hereby to assume the obligations arising from all contracts now in force between *ARCTIC COAL COMPANY* and its employees at Advent Bay or elsewhere, on and from the date hereof:

"*AYER AND LONGYEAR* agree to operate said mines to their fullest capacity during the period of this lease, and to render to *ARCTIC COAL COMPANY* a monthly report of coal production and the cost thereof, of all contracts for the sale of such coal and delivery of same, and to render at the termination of this lease a full and complete accounting arising out of the tenure, operation, and sales by said *AYER AND LONGYEAR* during the term of this lease:

"It is mutually agreed that any and all net profits accruing from such tenure, operation and sales by *AYER AND LONGYEAR* shall be applied on account to the liquidation of said indebtedness of *ARCTIC COAL COMPANY,* to *AYER AND LONGYEAR* above mentioned."

On the same date, Ayer and Longyear, the new lessees, informed Turner that they were taking over as from that day "the entire operation of the mines and the disposition of their output, assuming all existing contractual obligations of the Company for a period of one year." He was confirmed in the management of that property on their account, and authorized to open such bank-accounts, either in Norway or in England or in both countries, either in their name or in his own as agent, to sign all letters and documents on their behalf, with full power of substitution and delegation of authority, and otherwise to act for them conformably to the above contract. It was a clever and perfectly justifiable maneuver.

Title to the Staff-house. Turner immediately made arrangements to clear up the title to the staff-house in Tromsø. At first its register was transferred so as to stand in the name of Carl S. Saether, but that put the property entirely out of the hands of the owners, and, as Turner wrote, "outside of the protection that you have on account of your knowledge of Saether's character and record," might cause difficulty in establishing a claim to it.

The plan discussed at Longyear City was to allow Saether to take the property over by assuming the mortgages, guaranteeing periodic payments on account, Ayer and Longyear to be protected in part by a promissory note and in part by a second mortgage, the expectation being that Saether would soon be able to sell it. The War, however, had made money hard to obtain, and Saether was unable to borrow enough to put the deal through.

End of Corporate Ownership. Another plan was discussed whereby, for instance, Mr. Bentinck-Smith or Charles F. Ayer, some one connected with the Boston Office, though neither Mr. Frederick Ayer nor Mr. Longyear, should apply to the King of Norway for permission to own property in that country, and take over the staff-house as a summer residence. The Company's attorneys thought there would be no difficulty in making that arrangement. Such a petition addressed to the King would go through the Governor of the Province, and did not require the signature of the applicant. When the title was thus secured without danger of attachment by reason of the ownership of Ayer and Longyear, it could be "optioned" to Saether or to some real-estate agent for sale. These documents and transfers were merely matters of form, and Turner so arranged them that there would be little or no difference in their actual operations and proceedings on the Island. But he realized that, in view of the liability of heavy judgments in suits already on trial or in those appealed, it was essential that all semblance of corporate ownership in Norway should cease. Henceforth, since he himself would establish his offices in London, and the owners of the mines had absolutely no prop-

erty in Norway, all further suits would have to be tried in the United States.

Sale of the Staff-house. The outcome of the matter was that the staff-house, bought in 1912, was sold in 1915 for 17,300 kroner, 4,800 kroner more than it cost. No repairs or betterments had been made on it. All the furniture and fittings were taken down to the office and put on sale. So that property was snatched from the greedy Vikings. In 1921 Saether wrote that this property had increased in value to 60,000 kroner.

In order to keep the Coal Company's bank-deposits out of the clutches of the authorities, he transferred the money he had on hand in the Privatbank at Trondhjem, a commercial institution, to a savings-bank, to remain on interest for six months and then be subject to withdrawal on demand, being subject only to the written order of John M. Longyear or of the European manager for Ayer and Longyear. That amount was safe for nine months. He deposited the monies of the Arctic Steamship Company in the savings-department of the Tromsø bank, with an extra sum of 25,000 kroner. He expected to go through the year without further drawing on the Boston owners, unless possibly a small advance at the beginning of the next shipping season, when payments would be due on the colliers; but that would be only in case sufficient payments were not received for sales of coal. He advised Ayer and Longyear to give up all attempts to operate the three tracts of coal-land at Spitsbergen standing in their name and possibly to drop them.

This move to evacuate Norway entirely effectually blocked the attempt of the Norwegians to make the Americans "register" in Tromsø, and removed all their property from Norwegian jurisdiction.

One other piece of important business he attempted to regulate. He addressed a letter to the telegraph management at Kristiania asking if it would not be possible to withdraw or modify the order promulgated by that Department refusing to transmit code-messages to and from Spitsbergen. He wrote:

TURNER'S PLEA TO THE TELEGRAFSTYRELSE. "While we are aware that on account of the War similar rules have become necessary between belligerent countries, still we can not see the necessity at this time of such a rule between Norway and Spitsbergen, especially during the Winter, when it is absolutely impossible for any one to go to or come from Spitsbergen, for any ship to navigate Spitsbergen waters, or for any post to go in or come out.

"On account of the extremely high rate (one franc per word) it will be quite impossible for us to continue to telegraph regularly in uncoded messages, and we have therefore been forced to telegraph our Spitsbergen office as follows: 'Account present telegraphic rules, discontinue all messages. Telegraph us January 4th.'

"Being thus cut off entirely from all telegraphic communication with Norway will work a great hardship during the long Winter with the 136 persons now wintering at Advent Bay, 125 of whom are Norwegians or Scandinavians, as the conduct of affairs and general business at our village is impeded, news and information will be lacking in Advent Bay, and messages to this office regarding payments of sums of money to wives and families of men at Advent Bay will be interfered with. Likewise, we would call your attention to the fact that probably over 95% of the paid Winter messages sent from your Green Harbor station are sent to us, and that about 80% of the entire Winter population of the Spitsbergen archipelago lives at Advent Bay and is directly affected by this order.

"In view of the special conditions existing in Spitsbergen, and of the points outlined above, we ask if this matter can not be adjusted without unreasonable delay so that we may be permitted to resume the sending of coded messages between our offices at Advent Bay and Norway.

"To emphasize our claim for consideration in this matter, we might point out that your books will show that in the one year between October 1, 1913 and September 30, 1914, we paid 3990.95 kroner for messages sent by us *from* Spitsbergen *to* Norway through your Green Harbor station, and a very large

sum, the amount of which we have not at hand at the moment, for messages from Tromsø to Spitsbergen."

Petition to Minister Schmedeman. He also petitioned Mr. Albert S. Schmedeman, United States Minister to Norway, to enter a protest in which he gave additional reasons for the rescinding of the order. He wrote:

"We may say that in addition to weekly statements of progress and production, it is necessary for our accounting departments in Boston, Tromsø, and Spitsbergen to exchange long monthly telegrams for the purpose of transmitting monthly balances and cost-statements, and we have a special code covering this. To follow the present rule, and telegraph all this in plain English even spelling out all figures in words, would not only involve a prohibitive cost, but would also reveal and tend to make public property information of a highly private character.

"Therefore you can see that the ruling of the Telegraph Department interferes with and embarrasses us very much more than we have admitted in our letter to that Department, in which we have raised the question of cost alone, and as we are the only people using the Ingö-Green Harbor service, this rule was aimed directly at us and affects only us.

"This service is of course entirely through neutral countries. The Ingö-Green Harbor service is Norwegian internal service; and is in no sense international; whereas the Green Harbor-Advent Bay service, if it is international, is between Norwegian and American soils. It seems to us that it requires a good stretch of the imagination to see how private telegrams between our two offices could affect or concern the warring nations, and we are forced to the conclusion that the Norwegian Department is only taking advantage of the present European situation to find an excuse for their action, and that we are being deliberately victimized. You probably know the situation in Spitsbergen well enough to realize that information regarding our operations on the island would be extremely welcome in official circles in Christiania, and that if we should continue to telegraph as the Department has or-

dered we shall, such information covering the greater part of a year would be in their possession.

"We have a contract with the Norwegian Government, good until 1923, in which it agrees to furnish us with daily Spitsbergen service, if necessary, at one franc per word. Nothing is said about code-words. The present order, while it is dated Christiania, September 16, was not called to our attention until after the middle of October, when our last ship had left Spitsbergen, and it became certain that all communication except by wireless was cut off until next June. Why were we allowed, in the face of the order dated September 14, to send code-messages from here on September 15, 16, 21 and 27 and October 1, 3, 6 and 12, to Spitsbergen, and why was our Spitsbergen office allowed to telegraph us in code on September 20, 22, 25, and 29, and again on October 6, 8, and 12? The answer of course is that had we known of the change we would have arranged a system of telegraphing in English text which would have met the requirements, and still have been semi-secret. We are forced to protest against the present ruling of the Government."

Necessary Economies. Among the economies made by Turner, in accordance with the formulated plan, were, besides giving up the Tromsø office and warehouse, the discharge of the captain and engineer of the *Munroe,* and dismissing every employee who was not absolutely necessary. Gilson, who was an excellent manager, went to the States and Whitman, who was "an exceptionally good man," was sent home. Turner wrote to the Company announcing these changes, and suggesting others.

2. THE NEW CORPORATION

Turner carried out his drastic program at Tromsø, leaving no slightest detail at loose ends. He sailed for London early in January, 1915. While there he received a delayed letter from Mr. Longyear, who suggested "robbing the mine": that meant getting coal from the pillars that supported the roof, even at the risk of letting it fall in. Turner replied:

"Robbing the Mine." "Regarding your suggestion of robbing the mine, you will understand that this is practically what we are doing this Winter, as no development or exploration of any kind is going on. Our results at the end of the Winter will be the answer to your question."

He reported that word had come from Tromsø that the *Munroe,* still tied up, was leaking less. "It seems a peculiarity of wooden vessels," he said, "that the longer they are tied up in quiet water the less the seams remain open. It may be that she will be comparatively tight by next Summer, but, of course, rough weather will open her seams again. We are in doubt as to what to do with this ship next Summer."

Turner Returns to the United States. He sailed for America on the *Lusitania* on January 16, and reached New York January 23. During the short time that he was in the United States he had many conferences with Mr. Longyear, Bentinck-Smith and the other officials of the Company. While he was in New York, after a visit to his Lansing home, he brought up the question which he had discussed with the Company's attorney as to the individual liability of the lessees of the Arctic Coal Company's property. It seemed to both of them very serious. Bentinck-Smith wrote Mr. Longyear that he thought it was "inadvisable for either him or Mr. Ayer to have contracts entered into in their name which involved such personal liability, particularly in view of the disturbed business-conditions." As a result of this, the lease of all the Arctic Coal Company's "mines, installation, equipment, and everything pertaining to the mining and shipment of coal, now situate at Advent Bay, Island of West Spitsbergen," was assigned and transferred on March 5 from Ayer and Longyear to "Ayer and Longyear, Incorporated." When announcement of this change in the lease was announced to the Department of State, about six weeks later, the first query broached there was: "What proof is there or have we that Ayer and Longyear, Incorporated, is an American corporation?"

State Department Taking Nothing for Granted. When Nathaniel Wilson assured the solicitor that it might be

taken for granted that the *new* corporation was also an *American* corporation, the reply was: "Nothing of that sort is taken for granted," and they insisted that "the very foundation of any action by the Department is the *citizenship* of the company for which it intervenes." Mr. Wilson wrote the secretary of the Arctic Coal Company, Bentinck-Smith:—"In a word, if the Department is to be asked to do *anything* for Ayer and Longyear, Incorporated, there must be authentic evidence of the existence and organization of the new *corporation,* such as has always been on file in respect of the Arctic Coal Company."

Unduly Suspicious. The solicitor also queried the "strangely informal and scrappy" character of the transfers, considering the importance of the business and the obscurity of the transaction, and the unexplained change in the identity of the interest on behalf of which the Department has so long been exercising its influence." In consequence of this hesitation on the part of the Department, Wilson advised that if any requests were to be made to the State Department, proofs of the incorporation and organization must be obtained and presented, the present lessee duly authenticated according to the laws under which action was taken, whether of Maine, Massachusetts, or West Virginia. Wilson thought that the Department would certainly regard it as very surprising that so long a time had elapsed since the act of incorporation had been effected.

Act of Incorporation. The Act of Incorporation was certificated under the laws of Massachusetts by the Secretary of the Commonwealth, and witnessed by a notary public. It permitted the new corporation "to buy, sell, and transport coal and other minerals, and buy charter and operate vessels, and engage in the shipping of coal and other minerals and any business incidental thereto."

Simple Explanation. The mystery about these transactions was very simple. The Arctic Coal Company was practically Ayer and Longyear with a kite-tail of Norwegians as small stock-holders, only one of whom ever made any complaint as to the way the business was handled. Ayer and Long-

year were Ayer and Longyear, Incorporated, both the latter being the men who furnished the capital in equal shares; and, as we have seen, the apparent juggling was merely to compel the Norwegian Government to have cooked-up law-suits, instigated by it, fairly instead of unfairly tried. There was absolutely no attempt to avoid legitimate debts; but, as was natural, these capitalists had no intention of being treated in a way devoid of all equity.

The Secretary's Explanation. Mr. Bentinck-Smith explained the matter in a dignified letter to Mr. Nathaniel Wilson. He said:

"In view of the very large sums of money that Messrs. Ayer and Longyear had advanced to the Company, the lease of the property was made to them for greater security and to insure the return of these moneys at the earliest possible moment under their own direct supervision. This is substantially set forth in the lease. An additional consideration was the desire to keep the title to our properties on Spitsbergen distinct from the business-operations, and to avoid the claims and litigation that frequently arise from mercantile transactions becoming an apparent lien on, or affecting in any way the title to, Arctic Coal Company's property.

"We have the suspicion, whether justified or not, that a good many of the actions that we regard as unfriendly, were caused by the desire to create as many claims, and, if possible, judgments, against Arctic Coal Company as could be, and either make operations by this Company impossible, or in some manner establish claims against the title to our Spitsbergen properties. To avoid such a condition of affairs, Arctic Coal Company has withdrawn from Norway and ceased to do business there. If any business is transacted there it would be done by Ayer and Longyear, Incorporated, or more likely by this Company's selling agent; though this Company, even, hopes and expects to make its contracts and transact its business outside of Norway.

No Real Change. "I think this is substantially the way Mr. Turner presented the matter to you when last in Washing-

ton. In other respects the condition of Arctic Coal Company is changed nowise. It has parted with none of its property except some chattels for which it had no use, and has not in any way parted with title to its Spitsbergen real estate. The date of October 1st represented the close of the shipping season and of the Summer's business of Arctic Coal Company, and in view of the fact that Messrs. Ayer and Longyear, and subsequently their assignees, Ayer and Longyear, Incorporated, expect to make collections for any coal-sales in 1915, the payroll from this date on and other bills were assumed by these gentlemen and their assigns.

"The exact financial details and the assumption of the Ayer and Longyear lease of October 1 by Ayer and Longyear, Incorporated, could not be completed until Mr. Turner's arrival here, which you know was not till the end of February. That is the reason for the matter not having been presented to the State Department through you at an earlier date. Since then a good many papers in connection with this transaction have been lost, as all of Mr. Turner's baggage, including all the documents that he carried with him, went down with the *Lusitania*."

3. ATTEMPT TO SEIZE THE MUNROE

In the early Spring an attempt was made to seize the *Munroe*, although she was in the name of an American citizen and flew the Stars and Stripes. When Ayer and Longyear, Incorporated, applied to the State Department at Washington for release of the vessel, the correspondence relating to the corporation, as instanced above, showing how the solicitor was affected by the "mystery."

On March 17, Wilson wrote to the Honorable William J. Bryan, Secretary of State, informing him that this steamer, "duly documented as an American vessel and entitled to the protection of the United States," was held by the Norwegian authorities at Tromsø and forbidden to leave that port; that an official seal had been placed on her rudder so that it was im-

possible for her owner or his agents to move her. After rehearsing the circumstances of her ownership he proceeded:

Neutrality of the Steamer. "Inasmuch as the nationality of the steamer and the ownership are plainly shown by the correspondence referred to and by the action of the Department, and inasmuch as the proceedings of the Norwegian authorities are asserted to be arbitrary and unlawful and without any probable or sufficient cause, and as the seizure of the vessel and her detention are likely to cause irreparable injury to the owner, application is made and the request respectfully urged that the Department will direct the Consul General or request the American Minister at Christiania to ascertain and report immediately by cable the cause of the seizure and detention of the vessel, and to obtain its immediate release, and to seek an explanation of the Norwegian authorities of the proceedings against the vessel and indemnity for the injuries the owner has already suffered and those that may hereafter result to him.

"There is a great and increasing demand for neutral tonnage. Freight-rates are high and will probably be higher, and the owner's need for the use of the steamer and the opportunities he will have for profitable employment are of immediate importance."

Hesitation of the State Department. Wilson explained to Bentinck-Smith the reason for the hesitation of the Government of the United States to interfere. The first point was that it would probably be asserted that the claim sued was *in rem* against the vessel and followed the vessel, the change of ownership the August previous did not release the vessel from the liability of being libelled and seized. Had the State Department been certain that it was held for a claim against the Company and not for services to the ship or for supplies taken on board or for work done, it would have made a demand for immediate release, but it "would not make such a demand while in the dark as to the facts."

It was pointed out that "as the vessel was engaged in whaling, it was not entitled to American registry under the act of

August 18, 1914." Wilson informed the Company that the signal letters L D W N, which the Department of Commerce declared was as good as registry but did not constitute registry, might be forwarded by mail to the American Consul General at Kristiania. Fortunately Mr. Neilsen, who knew so much of the Company's affairs, happened to be in Washington, and but for his influence nothing could have been started for days; it was made manifest that the vessel was, as a matter of law, entitled to admission under American registry, for while she was described as a whaling-ship, she was engaged and had been for years in trade with foreign countries.

The Department Moves at Last. Up to June no pressure had moved the Norwegian authorities at Tromsø. The State Department, finally satisfied that the American registration was all right, cabled to its Minister at Kristiania, and at his instigation the Norwegian Government telegraphed to the court at Tromsø to release the ship. The judge was reported to have thanked God that the Norwegian courts could not be influenced by any pressure of that kind. Turner, who was back in London at that time, wrote that he was much amused at the "high moral tone of this utterance" when he knew that those courts were "about the rottenest on earth."

He was in a great quandary what to do, for the retention of the *Munroe,* if it should last into July, would prevent him from relieving the wintering crew and transporting the Summer men to the island; the Company for the first time had no ships in time-charter. They were indeed "pretty well tied up."

He urged Ayer and Longyear, Incorporated, to persuade the State Department to bring still more pressure on the case. "If we get this vessel released," he wrote ("even on humanitarian grounds, for the relief of marooned Norwegian citizens on Spitsbergen), if only for three months, it would help."

XVIII. WAR TIMES

1. THE LUSITANIA DISASTER

TURNER sailed from New York on the *Lusitania.* As all the world knows, this stately ship was torpedoed on May 7, 1915. Mr. Longyear was at Los Angeles, and received a wire from his Marquette office announcing the disaster, and stating that Scott Turner's name was not reported among the survivors. Mr. Longyear replied that he would go East immediately if he could do anything, and ordered that every possible effort be made to get news.

TURNER, FEARED LOST, SAFE. Later, the same day, came another telegram asking Mr. Longyear to cable any one he knew in London to find out if possibly he were alive, and still later that day he received another telegram: "Mrs. Turner wires Scott is safe; had cable from him at Queenstown." Still other telegrams came to the same effect. Bentinck-Smith wrote on the 10th that up to half past two o'clock, when as it was supposed the Cunard Company had published the final lists, they were unable to get any definite information, and they began consideration of what steps to take in case the worst had happened; but that very morning they got a cable from London from Turner himself saying that he was safe, though all his luggage was lost, including important letters and documents and asking for immediate despatch of copies.

In due time Mr. Longyear received a long letter from Turner, dated London, May 13. He gives the following description of his experiences:

TURNER'S ACCOUNT OF THE TRAGEDY. "Probably you have seen much discussion in the American papers regarding this tragedy. The facts are these: The *Lustitania* left New York at the time fixed, proceeding with a moderate speed averaging about 21 knots, and arrived off the coast of Ireland

exactly per schedule. All shipping men, English or German, must have known where the ship was at every moment of her passage. Approaching the Irish coast, we ran in the regular groove, at reduced speed—probably not over 15 knots per hour, with all port-holes open, one quarter of our boilers cold, and no precautions or escort whatever. I understand the captain disobeyed two telegraphic messages ordering him to keep 100 miles off the coast. In other words, the chump invited disaster, and the whole thing could not have been planned better if the German Admiralty had arranged it.

The Captain's Carelessness. "The sudden list to starboard threw the 200 eighteen-inch port-holes on "D" Deck, all of which were wide open, under water, which increased the list until "C" deck port-holes came under. This carelessness with the port-holes alone probably sank the boat twenty minutes sooner than she would have taken otherwise.

"The lifeboats were handled very badly. Of the twenty-eight full-sized boats of the ship all my information leads me to believe that only four were successfully launched. Others were crowded full of men, women, and children, and then dropped from the davits, and this alone accounts for a large portion of the high loss among first-class passengers. Most of the people who were saved were people who did not get into the boats at all.

The Torpedo. "I was in my cabin when the torpedo struck the ship about 2.10 in the afternoon; the projectile struck just under me, and the ship immediately listed badly to starboard. The captain, in my presence, announced that all passengers must keep off the boat-deck, as the ship would not sink and no boats would be lowered. Later, various boats were lowered, and I was put into one about three minutes before the ship sank.

Loaded Boats. "This boat, loaded with about sixty people, hung a moment on the davits, and then the fall-rope supporting the stern was let go or cut, thereby hanging the boat vertically and spilling every one into the sea, 65 feet below. The boat was then dropped on top of us, smashing it to

pieces and carrying me down with it. On account of the headway of the ship, which held until she sank, this boat turned over under water like a trolling-spoon carrying me with it, and then as the bow-rope was still fast it swung with violence against the side of the ship, catching me between the boat and the ship, dislocating my left shoulder, smashing my nose, and cutting my legs badly. I was the sole survivor of this boat-load.

A Boat Stove In. "Later I swam to a second boat, which had been dropped half way from the deck, but still contained over fifty passengers. On getting in the boat I discovered it was stove in, and it sank in about three minutes, throwing us all into the water. While the boat did not sink below the surface of the water, still the frantic passengers climbing on it caused it to roll over and over again, carrying us under with it each time, and killing some each time until there were only seventeen of us left.

Four Hours in the Water. "I clung to this sunken boat for about four hours until picked up by the steam trawler *Indian Empire,* probably about seven o'clock, and we were landed in Queenstown at ten o'clock, and I had the dislocation in my shoulder reduced that night.

Injuries Received. "I left Queenstown at 3 o'clock on Saturday afternoon, and arrived in London at half past six Sunday morning, still in my wet clothes. Here, the doctors thought that in addition to the dislocation the bones of my shoulder had been broken, so I had an X-ray photograph taken on Monday which showed the bones to be all right. I am therefore hoping to have a very fair shoulder in time, and next week an operation on my nose will probably clear up that difficulty."

Records Lost. A second letter, acknowledging a cablegram sent from Los Angeles, seemed to make light of his "rather rough experience"; he was more concerned about the loss to the Company of "many valuable records: in fact," he said, "all the private correspondence, documents, memoranda, and reports (many of which do not exist in duplicate), were

lost; and in addition to this all my own private memoranda and my notes for the last fifteen years went down, and these of course are absolutely unreplaceable."

Mr. Bentinck-Smith, the secretary of the Arctic Coal Company, thought his escape "almost miraculous," and judged that he was feeling a good deal used up, such an experience telling heavily on a man's nerve, and it seemed to him that "he might be feeling rather shy about Norway and Spitsbergen." He was trying to get together various papers, chiefly letters of authority and the like, but hardly knew where to start.

Disquieting Message from Spitsbergen. In the same letter in which he asked for duplicates of lost documents Turner mentioned that he was quite disturbed at having received a wireless from Spitsbergen, "Come at once." He had arranged for the superintendent and all the workmen to be on hand the last day of June, and it was impossible for any one to reach Advent Bay earlier, the organization not being at yet perfected, and the *Munroe* still in the hands of the Tromsø authorities. He was expecting to be attending to business within a few days, but he had no relish for crossing the North Sea until his shoulder and his nose should be in better shape.

Ordered to the Hospital. The doctor ordered him to the hospital to have the bones re-broken so that the cartileges which closed the nasal passages might be set right. At the end of a week's time, the physician said he could proceed to Norway. He had also to buy himself a complete new wardrobe; all his trunks had gone down with the *Lusitania*.

2. THE MUNROE RELEASED

Shortly after reaching Tromsø Turner reported to the Boston office that the attachment-proceedings concerning the *Munroe* had been quashed. The suit which had brought about her arrest had been brought on August 22, 1914, by Aktieselskab Ishavsfangst, whose motor-boat, the *Nona*, suffered damage while trying to carry provisions to the *Munroe* while stalled in the ice. They claimed 40,000 kroner as a compensation, and gave as reason for wanting her seized "that the

Arctic Coal Company, which at the commencement of the suit had an office and venue in Norway, later had moved to London, while it had also transferred its coal-properties to a strange [foreign] company." It was argued that if judgment were rendered for the plaintiffs there would be nothing in Norway to satisfy it; but the *Munroe,* while formally belonging to "one Mr. Thompson," was probably in his name only as a matter of form.

The Nona Suit Quashed. On February 5 the court decided to grant the attachment and arrest of the ship. Later the owner through his attorney protested to the Maritime Court of Tromsø, and demanded, as the rightful owner, that the arrest be quashed. Documents presented proved to the satisfaction of the judges that he had bought the ship, and the court found itself unable to agree with the plaintiffs that decisive weight should be laid on the circumstance that Mr. Turner, who had been and probably still was manager of the Arctic Coal Company, was also manager or broker for the *Munroe* in behalf of the new owner:

"The Decision is, therefore:

"The arrest of the steamer *Munroe* granted to the Aktieselskab Ishavsfangst, to satisfy what possibly is due it from the Arctic Coal Company, is cancelled.

"The costs of the suit are cancelled."

The suit of the owners of the *Nona* was also thrown out of City Court of Tromsø on the technical grounds of "no venue"; that is, the Arctic Coal Company was not registered at Tromsø, it had ceased its coal-selling-business before the suit had been instituted, and, moreover, the agreement between the two parties had been made on Spitsbergen without touching either Tromsø or Norway.

Demur Justified. Turner thought the evident legal grounds had become very suddenly apparent, even to a Tromsø Court, as soon as pressure had been brought to bear through Kristiania and Washington, and fully justified the Company's contention "that the arrest and detention of the *Munroe* for months was illegal and unwarranted." He proposed to bring

a counter-suit for damages against the owners of the *Nona,* who he expected would appeal the decision of the Maritime Court.

The Munroe Gets Off. The *Munroe* had been overhauled and passed inspection without being dry-docked, but Turner said the inspectors had been "unkind enough to demand a new funnel, which cost 1050 kroner." She was provisioned for 100 men for four weeks, and sailed from Tromsø on July 1, with eighty-seven men on board, in charge of "the only white man," Gilson, who had returned from the States. She got safely to Advent Bay on the 8th, forcing her way through very difficult pack-ice. She left there a week later, and after a perilous trip arrived bringing a cargo of coal, seventy-three of the winter men, and five women and children. One hundred and forty-one men were left on the Island to be brought back later. The ship was so badly injured by the grinding of the ice that she had to be repaired at large expense. Then, on August 27, reprovisioned and rebunkered, taking twenty-two additional summer men and an extra ice-pilot, the most experienced men that could be found, she started on her second trip, but was unable to force the ice and returned to Tromsø. The Company had to discharge the men, paying them for their time and cancelling their contracts.

Impenetrable Arctic Ice. Ice-conditions grew worse instead of better. All Turner's carefully laid plans, like other plans of mice and men, went "a-gley." The Arctic possessed "a force too big for mankind to cope with in the present age," as he expressed it. The Ice Fjord and Advent Bay and the open sea for fifty miles out were solidly packed with an impenetrable barrier of ice.

The *Munroe* reached Tromsø after a dangerous trip, and returned on July 27, taking twenty-two workmen with her, but came back again on August 10, reporting "absolutely impenetrable ice," so that she could not reach the Island at all. Turner had to settle with the workmen and cancel their contracts. The *Munroe* had to undergo considerable repairs, and as soon as she was bunkered and re-provisioned she was sent

off again in order to bring down if possible the rest of the winter men. Since July 9, it had been impossible to reach Advent Bay or get a letter there.

3. KWASIND IN BAD LUCK

The *Kwasind* had been all Winter earning a good bit more than her salt. In December, during calm and foggy weather, while she was proceeding with gradually increasing speed as the fog cleared, the chief officer suddenly sighted a buoy ahead and put the helm hard a-port. In doing so a wheel-chain fouled in the sheave of the steering-engine, and before the ship could pay off sufficiently she grounded on the edge of Barnard Sand. The engines were reversed, and after an hour, by running them full-speed astern and pumping out one of the ballast-tanks, she managed to come off the shallows and entered Stanford Channel and proceeded through Yarmouth Roads.

Heavy firing of guns off the starboard brought her to a full stop. When the firing was no longer heard, she went on full speed through the afternoon until five o'clock, when, the weather becoming dark and hazy, the chief officer ordered the port anchor cast; in doing this the fifteen fathoms shackle broke. He then let go the starboard anchor and slacked out thirty-five fathoms of chain in nine fathoms of water. A little later, he slacked out ninety-five fathoms of chain, and steamed around in order if possible to "sweep" the port anchor at slack water. This scheme failed; the anchor and chain were lost.

Carrying Coal. She then proceeded to Rouen with a cargo of coal at a very high rate. At Rouen she was detained until the end of the month "in demurrage," and was immediately chartered to carry another cargo of coal from the Tyne to Saint-Nazaire which brought in $24,500—a record achievement. She was kept in this kind of service and earned "good money" up to the middle of June, when she was dry-docked for possible repairs. Her experience on the Barnard Sand had inflicted no more damage than partly tearing off a portion of the bilge-keel. She had suffered no straining; the bottom-

paint was unharmed and she was "fairly clean, although she had not been docked for more than a year, which is an unusually long time to let a vessel go unscraped and unpainted."

In a letter from Tromsø dated July 10, 1915, Turner says:

Narrow Escape from Bombs. "As she was about to be launched, the British Corporation man made his annual inspection of her tail-shaft and propeller, and condemned them both. They were taken out and new ones promptly ordered, but this delayed the vessel another eight days in the Tyne, and the cost of these two parts was about £260 exclusive of her second docking. She had a narrow escape in dry-dock, as three Zeppelins passed over her, dropping eighteen bombs, one of which exploded less than one hundred yards from her. At the time I was passing down the Tyne on the Bergen steamer, and we got three close to us.

"As the ice conditions in the Arctic continued bad, I telegraphed to have the *Kwasind* make a second London round instead of coming on here for early July, but telegrams are so slow in these degenerate times that she got away before she could be stopped, and arrived here in Tromsø in ballast on July 8th. As the *Munroe* was still icebound, we held the *Kwasind* here until July 11th, and then let her go forward with the best ice-pilot available. That was eight days ago and we have not heard from her since, and she has not yet reached Green Harbor or Advent Bay. The *Munroe* is still icebound in Green Harbor on her first trip, and the ice is reported as very heavy.

Heavy Insurance Rates. "I thought it a wise precaution to insure the *Kwasind* north of Tromsø this year, although we never have before. I accordingly telegraphed our English agents to insure her, and got the following answer under date of June 18th: '—underwriters asking 30 shillings per cent extra each trip Spitsbergen to extend policies north of Tromsø,' to which I replied by wire, dated June 21:

" '—Insure north of Tromsø regardless of cost.' I have had no news of the insurance, but have written urging the same thing, and the matter should be in order.

White Sea Mines. "You probably have read that some one has been mining the White Sea, and that several vessels have thus been sunk there. We therefore run this additional risk if we send her up there for timber at the end of the Spitsbergen season. Likewise, over 500 mines have been brought into Bergen, and they are being found all along the coast here, up to and including the North Cape. Practically all are English mines.

The *Kwasind* was sent up to Advent Bay on the 11th. Turner had made an arrangement with the Nordenfjeldske Company whereby they agreed to buy 500 tons of Spitsbergen coal at a rate slightly less than that obtaining in London, the stipulation being that the purchasers should send their own ships for the greater part of the cargoes, making it practically certain that the Company would not be obliged to charter any ships at all during the season. This was regarded as very fortunate, as owing to the ice-conditions they would have suffered heavy losses by reason of the extraordinary delays.

The *Kwasind* arrived at Advent Bay August 13. She waited twelve days, and departed with her load only to be imprisoned and drifted out of sight by the ice, presumably short of provisions and bunker-coal. When last seen she was at St. John's Bay on the east side of the Foreland Sound. Gilson headed an expedition which made its way first to the north side and thence to the south side, but failed to find any trace of her. She finally worked herself free and arrived at Tromsø with her steering-apparatus badly damaged.

In his annual report Turner gives a graphic picture of these Arctic conditions:

Worst Ice in Years. "A canvass of the old Arctic skippers in North Norway showed that within the memory of living men, which here goes back for fifty years, no such ice has been known in Spitsbergen waters. The cause was undoubtedly the continuation during March and April of severe and unremitting northerly gales, as shown by weather-observation stations in northern Europe; these gales were unusual, and drove south the heavy Arctic ice-pack lying to the east

and north of the Spitsbergen Archipelago; subsequently, wind and current moved large areas of this ice around South Cape, and lodged them along the west coast of West Spitsbergen, including the coast between South Cape and Prince Charles Foreland. During the entire Summer a mass of very heavy pack-ice, in dimensions roughly 150 by 100 miles, with an area of perhaps 15,000 square miles, blocked the entrance to the Ice Fjord, at times filled the Fjord and Advent Bay, and extended so far in every direction that no one ever ascertained its extreme northern or western limits.

Ships Held for Weeks. "In previous years, ships of the Arctic Coal Company have left North Norway for the Island some time in May. This year the first ship of the season, the *William D. Munroe,* left Tromsø on July 1, and had forced its way to Advent Bay by good luck on July 8; on the return journey, she left Advent Bay on July 9 and arrived at Tromsø on the 22d. After the first of July, conditions became worse instead of better, the first collier, the *Kwasind,* left Tromsø on July 11, and arrived at Advent Bay on August 14, badly damaged by ice, after lying helpless in the ice-pack for about five weeks.

Colliers Damaged. "All subsequent colliers were delayed, disabled, or forced to turn back, from the standpoint of navigation, the season was extremely difficult and disastrous. Had this Company followed its previous practice of operating colliers in this trade in time-charter, the financial loss would have been very heavy, both on account of loss of time and cost of repairs and insurance; but outside of the *Munroe* and the *Kwasind,* no ships were operated for Company account, and f. o. b. buyers of coal came in for all the extra expense."

Unsuccessful Trips. He went on to give a brief statement of the mishaps that had befallen the ships engaged in this ice-hampered traffic.

"The *Munroe* succeeded in making but three trips to Advent Bay between July 1 and September 27; one trip, covering over three weeks; she returned to Tromsø without getting to Advent Bay; she suffered little damage. The *Kwasind*

made but two round trips between July 8 and October 2; she lost two propeller-blades, damaged a third, dented her bow, and twisted her rudder-post to a 20° angle.

List of Injured Ships. "The steamer *Ulf Jarl* of the Nordenfjeldske Company made two trips between August 26 and September 23, but loaded only once, her owners recalling her in ballast the second time she arrived at Advent Bay, as they were fearful of ice-conditions. The steamer *Kong Magnus* of the Nordenfjeldske Company left Hammerfest August 17, lost her propeller in the Ice Fjord, and was towed back to Tromsø on August 30, repaired, returned to Advent Bay, was loaded and arrived at Vardø September 13, thus getting one load of coal in one month's time. The steamer *Knut Jarl* of the Nordenfjeldske Company left Tromsø August 17, towed the damaged *Kong Magnus* back to Tromsø, arrived at Advent Bay, the first time on September 3, loaded, discharged at Tromsø, arrived at Advent Bay on September 15, and was recalled empty on September 16, owing to dangerous ice; thus she got one load in three trips, from August 17 to September 20.

"The steamer *Orion,* of Jacob Kjøde, left Tromsø July 17, had her bow-plates stove in by ice, returned to Tromsø on July 27 for repairs, returned to Advent Bay and loaded on September 11 and arrived at Tromsø on the 16th, thus carrying one cargo in four weeks' time.

"The steamer *Sneland* of Thorvald Halvorsen left Tromsø August 14, had her bow-plates stove in by ice and her forepeak filled with water, repaired at Advent Bay, loaded and arrived at Tromsø September 1.

"The steamer *Faedreland* of Thorvald Halvorsen had a narrow escape, but between September 5 and 18 succeeded in carrying one cargo to Norway.

"The steamer *Arkturus* of the B. D. S. was sent to Spitsbergen about the middle of September, but returned to Norway without penetrating the ice-barrier, so this Company got none of its coal. The smack *Onse,* carrying the Russian engineer sent from Petrograd to examine your coal-fields, was in the ice for six weeks, lost her propeller, repaired it, was again

caught in the ice, and eventually abandoned by passengers and crew."

4. GETTING THE MEN AWAY

It was a question how to get the men marooned on Spitsbergen back to Norway. One hundred and twenty of them had trekked across to Green Harbor. Some of them were corraled at the Whaling Station; others were scattered along the Ice Fjord in such shelters as they could find. The only hope seemed to be to get them all together to the north side, establish camps on the glacier, and ship them from King's Bay, which happened to be open. That meant a difficult walk of seventy miles over rough ground, and involved a serious financial loss. At the last moment, however, they were got on board a chance vessel and brought in safety to Norway, where the usual stories were printed in the Tromsø newspaper about the treatment that they had received.

Source of Libels. Turner was informed that a discharged German workman was responsible for a good part of these libels. He had been picked up out of the gutter in Trondhjem by Turner and Gilson in the Spring of 1912, not having a coat to his back or a crust of bread to eat, and so down and out that no one would give him any work. He was then "a confirmed last-stage alcoholic," probably mildly insane and subject to fits. He spoke Norwegian and English, and they took him to Advent Bay, paying him $25.00 a month, "probably the highest pay he ever got in his life." At Spitsbergen, if he were kept away from liquor and shut up in a room by himself, he showed some aptitude in figures, and he was set to work posting the laborers' time from the foremen's day-books to the payroll-sheets and doing nothing else. He became such a nuisance by meddling in the Company's affairs, by irregularity in his work, and by impudence that Superintendent Dalburg felt compelled to discharge him, after trying him as a roustabout in the power-house where he had the audacity to call himself the consulting engineer for the Company.

The German's Threat. He threatened to kill accountant Bryan, and kept a knife in his desk for that purpose. He also claimed to be Mr. Longyear's personal representative, and responsible only to him, and intimated that if he were discharged he would "destroy the standing and reputation of every American working for the Company." He claimed that he had been appointed general manager in Turner's place.

Press Misrepresentations. The "Nordlys" of August 7 had an article embodying the complaints of the "over-winterers." It stated that the Company fed the laborers on tinned food, fish-cakes, and cold-roe, and sometimes meat-cakes which were so spoiled that they could not be eaten, half-raw potatoes, and half-boiled porridge which made the men ill. It related that a mass-meeting was held by the men who sent a deputation to the office to ask for better food. They were treated "in a very supercilious manner," the winter-superintendent expressing his sarcastic regrets that he had no mutton-rolls, pork-sausages, or other delikatessen to offer them. The article declared the life in Spitsbergen called upon the laborers "to change conditions by a united action." "You can enforce any reasonable demands. Organize yourselves up there," it said, "and place might behind the demands. By complaints you gain nothing from this extortionate company . . . It is a shame that free men should let themselves be treated as slaves by inconsiderate dollar-magnates. And it is said that you are under protection of the Norwegian law. You know this protection and what it amounts to, and you must ask nothing from it. You can rely only on yourselves."

A Hell on Earth. This attack was followed by others in the same violent form. On September 4, reporting the arrival of the *Munroe* with fifty laborers, the "Nordlys" charged that life on Spitsbergen was a perfect hell, that the laborers were treated like slaves, that no attempt was made to render their work safe, that the medical treatment was wretched. When the *Munroe* came in the last time on the 29th it gave a terrible picture of the voyage down, declaring that the forty laborers were separated only by a thin partition from

five horses and eight pigs, and were half starved on the food served, which they had to eat in empty cigar-cases owing to the lack of coffee and soup cups. The editorial said that it was useless to get any satisfaction from the government authorities, which had "enough to do persecuting and punishing socialists and pacifists,"—a task "much easier and more grateful than to take up the cause of impoverished laborers maltreated by Americans."

A good answer to this slimy attack is found in Turner's solicitude when it looked as if the miners might be obliged to winter on the island, and expressed his fear that without fresh meat and vegetables the food might become monotonous to them.

Stupid Laws. Doubtless if there had been a scintilla of truth in such charges the authorities would have been quick to take them up. The Government was ready enough to block the enterprise of the Arctic Coal Company, and it seized upon the War to hamper it in every way. It passed a law, evidently aimed at the Company, whereby all ships going to the Arctic with men on board were required to carry at least a year's supplies of clothing, food, housing-material, medicines, arms, tools, and ammunition for all the passengers. And in stupid conflict with this regulation, another provision forbade any ships taking out of the country more than three months' supplies. This practically prohibited operations on Spitsbergen.

Machinery and other supplies from America or England had to pass through the custom house, and another special law required such goods, even if they were billed "en route to Spitsbergen," to be held for special export-licenses from Kristiania. The only feasible method for getting supplies off was to load them on a vessel in Tromsø and to await an answer to telegraphed request for permission to export; this often caused delay of days and eventual failure to get all the goods cleared, with the annoyance and expense of unloading and shifting the cargo.

Communications Supervised. Both the British and the Norwegian governments exercised such supervision over mes-

sages by telegraph or wireless as practically to forbid free communication. No coded despatches could be transmitted between Tromsø and Advent Bay; numbers and a regulation code were refused, thus practically preventing the monthly book-keeping-reports, and rendering all their operations the common property of the Norwegian officials. Many cabled messages to America were either held up or delayed: out of six only one got through. A cable from America announcing the death of Dalburg's father was held up until six weeks after the funeral.

Seizure of Mails. Mails during the Summer had been extremely irregular. On August 18 a German submarine stopped the Norwegian mail-steamer *Haakon VII* as it was on its way from Bergen to Newcastle, threw a quantity of the mail into the sea, and confiscated other parcels including an important letter registered by Turner at Tromsø, carrying it back to Germany. "This act," wrote Turner, announcing its loss, "probably violated all existing laws regarding mail between neutral countries," and he urged Mr. Longyear to take it up vigorously with the State Department at Washington. He thought that for the Norwegian post-office to send mail for America by the way of England was "the height of folly, for it was not only subjected to danger of destruction but also was censored in England." He always marked his packages "Via Norsk-Amerika Linie eller Skandinavia-Amerika Linie."

Supplies were unprocurable even at topmost prices. No machinery could be obtained from England, where the factories were transformed into ammunition-plants, and moreover England interdicted all exports. The few transatlantic ships were so occupied in transporting war-freight that small orders were ignored.

These are only samples of the difficulties and obstacles which confronted Turner and his colleagues.

Work on the Island. A crew of only 127 men had been kept at Longyear City during the Winter and continued working until July: this was a picked crew of Scandinavian work-

men, most of whom had been trained for several years, and were unusually efficient under an unusually efficient staff of superintendents and overseers. Moreover, new and improved machinery had been installed, so that an output of more than 44,000 tons had resulted. New long-walls had been opened and 600 feet of electrically-driven mechanical conveyors were so placed that they could run steadily for five years or more without being shifted. New gates were driven, and one of the new "room and pillar panels" was opened and equipped with fifty-two rooms ready for immediate production on a large scale.* No labor troubles occurred, and the annual report stated that the code of rules and laws for governing the conduct of employees seemed adequate for every need; no crimes or acts of violence were committed and the severest punishments meted out to workmen were a few small money-fines due to conduct contrary to labor-contracts and agreements.

Slightly more than 17,692 tons were loaded between July 9 and September 23, besides 1613½ tons of bunker-coal. That was the smallest total since 1911, and two-fifths of the amount the loading-crew could have handled promptly and in due sequence under normal conditions. "Every effort was made by the buyers to force the ice, but steel vessels were unable to do anything with it."

Green Harbor Coal. All the coal that had been mined at Green Harbor, amounting to more than 2000 tons, had been put into lighters during the preceding Summer and sold for purposes of steam and domestic use, proving to Turner's surprise, to be well-liked in Norway. A substantial dock had also been constructed there during the Spring of 1914; but all operations

*In the Winter of 1914-15 the main entry had been driven 300 feet beyond the fault, and, by sinking about sixty feet and prospecting about the same distance, the continuation of the coal-formation was found, but the layer was thin and no commercial coal was found in that operation. So it was not determined how extensive the barren area extended beyond the mine. The many openings along the edge of the coal-seam, extending several miles in both directions from the mine, showed the seam to be continuous, and it was not considered likely that the barren area found in the mine would prove to be extensive. J. M. L.

both at Green Harbor and at Mine Number Two at Advent Bay had ceased under the necessity of cessation of operations, and of course these tracts as well as those at Cape Boheman and Sassen Bay were now completely deserted as far as the Americans were concerned; though they by no means relinquished their rights.

3. THE COAL-CONTRACTS

Turner, at the beginning of the Summer, had engaged a small office in Tromsø and begun as usual to open business, the license to sell coal for Ayer and Longyear, Incorporated, costing 100 kroner a month, payable to the Chief of Police. It seemed that, having complied with all legal requirements, there would be no further difficulty on that score.

Coal on a F. O. B. Basis. His constant object had been for several years to get the coal-sales on a f. o. b. basis, but on the very first year it had been attained shippers had naturally received a "very bad impression of the trade, and it is doubtful if they could be induced to operate on the same basis the coming season, or until it is again amply demonstrated that the trade is normally easy and the Summer of 1915 was entirely unusual."

Cancelled Contracts. While Turner was in London, Herre Bjernstad of the Bergenske Company had called on him and tried to force his hand regarding the contract which had been entered into between them. Turner, on account of the War, felt obliged to cancel it, and after some sparring they came to a compromise whereby that Company was to have 5000 tons f.o.b. at Advent Bay at a price slightly under that of the English market. He did this in order to avoid a disagreeable law-suit which would have made the Summer in Norway extremely difficult and unpleasant.

He was obliged to cancel most of his contracts, though he realized that if the season should grow more favorable, possibly by the last of July they might load the 40,000 tons which had been got out of the mine during the Winter; what he feared was that all the coal companies would take advantage of a sud-

den opening of the ice-pack and rush a number of colliers up to Advent Bay, with the result that there would be heavy loss on account of demurrage.

We have already seen from Turner's report how the ships sent up both by the Company and by the various purchasers came to grief and failed to get their cargoes either wholly or in part. "Eight different ships," Turner wrote, "loaded at Advent Bay in 1915, two Company boats and six boats of f. o. b. buyers, not counting vessels which started for the island and were forced to turn back. No tourist ships came to Spitsbergen, but there were four British war-ships off the mouth of the Ice Fjord for many days; heavy ice prevented them from entering, and the purpose of their visit and stay was not known. They stopped all vessels arriving and asked many questions about the camp, the coal, and the wireless-installation.

6. CLOSING DOWN OF THE MINE

Conditions were so discouraging and there was so little hope of any immediate improvement that it was decided to shut the mine down for the Winter. The State Department at Washington informed the Boston office that such action in the circumstances would not vitiate the Company's title.

Turner's Last Trip. Turner made one last trip to Advent Bay on the *Munroe,* starting from Tromsø and arriving at Ice Fjord on September 9. There the vessel met a dangerous mass of ice a hundred miles long and nearly as wide. At one time she did not move more than a few feet in twenty-four hours, though using full power of the engines, and heaving, with three winches, on wire-cables attached to icebergs.

She got back to Tromsø safely with all the men, five horses, three pigs, five dogs, and 150 tons of coal, besides provisions. Two horses, eight dogs, two pigs, and one cow were kept on the island. All the other live-stock, except that carried to Norway, were butchered. Two Norwegians and the foreman, M. Strauman, were left in charge of the property. One Englishman was engaged to remain for the Winter, but he

"flunked out." An American agreed to remain, but the night before the last boat sailed he too "hoisted the yellow flag."

The Island Deserted. Everything on the island was ship-shape. The premises were swept and garnished; the plant was put into perfect order; the railway and the buildings were protected from possible injury from accident or deterioration, that operations might be resumed in short order as soon as conditions should allow.

Condition of the Camp. The whole camp was so well-ordered that it would suffer little from ordinary weather; in the store-houses there were 99,000 kroner's worth of provisions, supplies, and goods, sufficient to last a hundred men for three months, besides provisions for the caretakers; the power-plant and all the machines were dismantled, painted, greased, covered up and stored until they should be needed.

The *Lenore* was left at Spitsbergen as usual. When it was proposed to put her also on the market, the Canadian Government refused consent, but afterwards, in response to a protest entered by Mr. Bentinck-Smith, the restriction was removed. She was finally sold to Saether, who tried to dispose of her.

The original stakes marking the corners of the Advent Valley claim were left untouched and thirty bronze tablets were set in concrete bases, each bearing the name of the Company, the number of the station, and other data. All the buildings were marked; the ware-houses and bunk-houses were numbered. A sign twenty-five feet long, displaying in large letters the Company's name, the trade-name of the coal, and other facts regarding the corporation, was placed in conspicuous sight at the end of the dock. Though Turner did not quite realize it, they were the grave-stones of the Arctic Coal Company as such; but there was to be a resurrection, as we shall now proceed to relate.

Office Force Disbanded. The office-force at Tromsø was disbanded, but the book-keeper from the island and a ware-houseman were kept for a time finishing up inventories and accounts. By December 1 Saether, the faithful agent at

Tromsø, was the only representative of the Company left in Norway, and he found himself fully occupied in disposing at the best possible advantage of such stores as were entrusted to him to sell, and to report at intervals to Boston.

A Bright Ending. The actual ending of the Company's activities in Norway was less disastrous than Turner had anticipated. After the long period of storm and stress things had begun to brighten. He was obliged to confess that the business "was in very tidy shape." All the contracts for coal-deliveries were automatically cancelled. "No new law-suits cropped up" and even if any had been brought none of the banks had any of the Company's money on deposit and no one could have collected. The suit brought by the disaffected miners was unexpectedly decided in favor of the defendants.

An odd attempt had been made in July to serve a summons on the Company in Boston. The Norwegian Vice-Consul, at the instance of a Tromsø lawyer working in the interests of certain miners who claimed a debt of more than 68,000 kroner, called at the office to serve papers. Mr. Bentinck-Smith, the secretary, protested this action on the ground that it was both unusual and of no legal significance for the representative of a foreign government to present claims on behalf of its citizens against citizens of another government at the place of their established domicile or business-office in their own country, and refused to consider the visit or the papers as valid notice or demand. He denied that there was any responsibility or liability on the part of the Arctic Coal Company or Ayer and Longyear, Incorporated, toward any of the persons named for the sum mentioned or any part of it. There the matter ended.

The Fate of the Ships. The question arose regarding the disposition of the *Munroe* and the *Kwasind*. The *Munroe* on returning from her last trip to Spitsbergen was put into winter-trim and stripped of everything that thieves, under cover of dark nights, might attempt to carry off. Turner thought that instead of selling her, as had been proposed, it might be better to have her on hand in case regular mining and coal-

carrying operations were to be resumed the following Summer, as she would be the only connecting link with Advent Bay. He expected, however, that the authorities would require many alterations and repairs. She was put in Saether's charge and was finally sold at good advantage, the purchasers taking upon themselves all the risks involved in her somewhat damaged condition.

The Company heard, a year or so later from Saether, that the *Munroe* had been sold twice since they sold her, each time at a profit to the seller. The last sale was at a price about four times that received by the American owners. The name was changed to *Ranneberg,* and the ship was put into the carrying trade for a year or two. With a cargo of coal the *Ranneberg* left an English port and was never heard of again. No wreckage has ever been reported and no member of the crew has been heard from.

The Kwasind in Trouble Again. The *Kwasind,* on her return from Spitsbergen was sent to Hull in November, taking a cargo of lumber. She was delayed three weeks in discharging because of a shortage of labor. Thence she proceeded to the Tyne to be drydocked and repaired. In running up the Tyne she fouled another ship's anchor-chain which was wrapped nine times around her propeller. Divers were unable to free it and an acetylene-flame had to be employed to burn it off. While thus entangled, the tide and current swung her heavily against still another vessel, but the damage was fully covered by insurance.

It was found that the ice had twisted her rudder-post through an angle of forty-five degrees and a new rudder had to be fitted at an expense of three hundred dollars. She went back into the water on the first of December, and loaded coal for Havre at twenty shillings. Profits in freighting at this time were so excessive that the British Government passed a law taxing them in behalf of the war-fund and it was expected that there would be governmental regulation of rates. Moreover, no ship flying the British flag was permitted to engage in foreign trade other than between Great Britain and its allies.

Sale of the Kwasind. The *Kwasind* was registered in Canada, and Turner thought she might escape the excess-profits tax or the risk of being commandeered for government service. As she was getting old, it was doubtful if she would be longer serviceable for the Spitsbergen traffic. Turner proposed to take advantage of the great demand for tonnage and sell her. This proposition was approved, and a bargain was speedily consummated. Turner sold her for £35,000 sterling. The purchasers proposed to keep her under Canadian regulations, and to retain her foreign management. The new owners kept her running as a freighter until April, 1917, when she was torpedoed by a submarine. Twelve of her crew were lost; only the Captain and the second engineer were saved.

Exchange of Compliments. Turner sent the Company a full report of each transaction as it eventuated and on October 1, he wrote: "We shall have more money to send before the end of the year." He added that they were at that moment peeled down to the limit. "The Arctic Coal Company had not one cent in Europe, Ayer and Longyear, Incorporated, had less than $250 in the Norway banks, and less than £100 in England."

There was nothing left, therefore, for the Norwegian wolves to seize and devour. Considering the devastations of the War, and the ice-blockade of Spitsbergen, the season must be regarded as having been extraordinarily successful.

Mr. Longyear, on receiving Turner's report of these various transactions, warmly complimented him for the great ability which he had shown in coping with a very difficult situation.

XIX SALE NEGOTIATIONS

1. POSSIBLE PURCHASERS

IT WILL be remembered that Mr. Longyear had become interested in Spitsbergen coal-properties only as a possible investment, and not with any thought of taking over a personal management of an enterprise situated at such a distance. He had complete confidence in his cousin, William D. Munroe, and expected merely to finance, wtih the aid of Mr. Frederick Ayer, an undertaking which promised great returns.

A Big Investment. After the tragic death of Munroe he found himself obliged to take an active part in getting the mine at Advent Bay into a condition of profitable production. Owing to circumstances, which have been fully rehearsed, the property on Spitsbergen remained merely on an exploration-basis for twelve years, resulting in a investment of nearly a million dollars, and it became more and more evident, especially after Mr. Scott Turner, a cool-headed and extremely practical, experienced, and trustworthy engineer, took charge, that it would never "pay" until it should be provided with a complete mining-outfit capable of getting out at least 200,000 tons of coal a year with an estimated profit of fifteen per cent on the capital.

Two Plans. There were two plans balancing each other in his mind: one was to form a company with a million dollars capital, $200,000 of which should be offered to other investors, and use the proceeds of the sale for equipping the mine with the latest kind of efficient machinery, so as to make it possible to produce at least 200,000 tons of coal a year. The other was to sell the property to some syndicate equipped with sufficient capital to carry it on economically and successfully.

The first intimation that the Arctic Coal Company would be willing to sell their interests in Spitsbergen appears in a letter from Burrall to his uncle, Mr. Longyear, dated at Trondhjem under date of March 24, 1909. He says:

BURRALL'S LETTER. "I stopped at Kristiania three days and had two or three talks with Blehr, the secretary of the Norwegian Foreign Minister. I gave him to understand our position as explorers, and told him we expected to sell to whoever offered us what we thought the right price. He appeared interested, and wanted to know about the property. I let him see the large photographs of the camp, and left them with him so that he might show them to his chief. It was news to him that the Swedes are sending up a small expedition this Summer, and he asked why they were going up. I replied that if I asked them they would probably say they were after scientific data, but that I suspected that they were somewhat interested in coal.

SWEDISH PROSPECTORS. "He then asked if we expected to do any business with the Swedes, and I replied that it did not matter to us who got our property so long as we received what we thought was right. He said he supposed that we should want 'millions' for the property, but I replied that we did not want to make our entire fortunes from this one thing, and that a reasonable profit would probably be all that you would ask. I do not know if anything will come out of this conversation, but I do not see that it will do any harm. The Norwegian Government is sending up a scientific expedition this Summer, and I suppose Blehr is going up with it, as he said he is going up this coming June and there are no excursions that early."

THE ANKER ENTERPRISE. He reported to Mr. Longyear also regarding the new company backed by Christian Anker, of the Varanger Fjord iron-property, who was about to seize the land at the foot of Green Harbor, "jumping" the Ayer and Longyear claims there. He thought that if Anker were intending to invest any amount of money in Spitsbergen coal, it would be a pity not to sell out to him.

He noted also that a Norwegian company was forming to purchase the property of the Spitsbergen Coal and Trading Company: the matter had been put into the hands of a local real-estate dealer for sale negotiation, and it might be offered to the Arctic Coal Company. This offer, however, came about

later: they wanted £30,000 for it; when Burrall bid one-half of that amount it was refused.

Colonel Lund's Interest. Another possible purchaser appeared in the person of Colonel Ole Lund, to whom Burrall carried a letter of introduction. Lund was the general manager of the iron-mines at Kiruna, Sweden, whose loading-docks at Narvik were said to be the finest in the country, having been patterned after those on Lake Superior. Burrall sounded him on the subject of forming a Norwegian company to take over the Spitsbergen coal-lands, and he replied that he had had Spitsbergen coal in mind for some time, his ambition being to have iron-smelting works established in Norway. But the chief objection was that Norwegian capitalists knew nothing about mining or manufacturing, and preferred to put their money into steamship-lines and the like. It was hopeless to think of interesting the Norwegian Government in such enterprises. But he was greatly impressed by what the American company had accomplished as explorers, and was "well worth cultivating."

Lord Morton's Company. In December, 1909, the Arctic Coal Company received a communication from Thomas B. Whitson, the secretary of the Scottish Spitsbergen Syndicate, Limited, informing them on the part of his directors that there was some talk of an amalgamation with the other Scottish company known as Lord Morton's Company, and asking what Ayer and Longyear would think of such a union; there was in this a hint that perhaps the Americans would join with them. Burrall, in his visits to Scotland, had several interviews with the capitalists interested in Spitsbergen, and though it was ostensibly for the purpose of combining to get the United States and the British governments interested in protecting them from the machinations of the Norwegians, there was at one time some prospect that the three companies might join forces in exploiting the riches of the Archipelago.

A Combination Proposed. On January 21, 1910, Mr. John Gibson, who happened to be in England on business for the Company, wrote as follows:

"On the 20th I met Dr. Bruce, Mr. Murdoch, and Mr. Whitson of the British Syndicate at Edinburgh. They are very much interested, and seem to feel just as we do as to the Conference and future of the island, and I told them we had addressed a letter to the State Department setting forth our wishes and ideas as to the requirements to guarantee peace and order, and that we hoped our Minister to Norway would be instructed in accordance with the main features of our letter. I pointed out to them the importance of having the claims recognized as staked and filed with our Government as they had done practically no work on any of their claims.

"They seem very anxious indeed to have their claims recognized, but I do not think they intend doing anything with them themselves. At luncheon, Dr. Bruce and Mr. Murdoch asked me how our company felt towards combining our interests, and I told them I could not make any definite promise. I was sure, however, if they could convince the directors of our Company that it was to our interests to combine, they would gladly do so, but that our Company would not consider any proposition that would require the investment of additional capital until the question of titles and of what laws were to apply to Spitsbergen were definitely decided on.

"They informed me that as soon as the present election is over they would address a letter to the Government and try in every way to have the British Minister act with the American representative."

Gibson interviewed the members of the unfortunate Spitsbergen Coal and Trading Company, which had sunk so much good money in an extravagant and ill-considered mine opposite Longyear City, the disintegration of which we have followed to the end. He said he found them seemingly indifferent as to their holdings on Spitsbergen. He added:

"They seem perfectly satisfied to rest on the letter of the Foreign Secretary, a copy of which you have, in which he promises to protect all British subjects' rights. I suggested that it would be hard to find a purchaser unless a clear title could be guaranteed, and also that the laws and regulations adopted

for the island would have a very material effect on the sale. I am sure they will not take any steps, and my impression is that they would be very well satisfied if they lost the property in such a manner as to have an excuse for themselves."

Nothing came of any of these attempted amalgamations or negotiations.

2. GERMAN NIBBLES

Before the world had learned to distrust Germany, the Arctic Coal Company conceived the notion that German interests which had been attracted to Spitsbergen might buy the property on the Western Island. As early as October, 1907, the following amusing letter came to the "very honored Herr Longyear" from a German scientist named Theodor Lerner, who had evidently been sent up to Advent Bay to report on the doings of the Company. Its style would have delighted Mark Twain. He said:

"Advent Bay, 1*st October*, 1907, Spitzbergen,
"Very Honored Herr Longyear:

"With these lines turn I, myself, to you, in order, to you, as the head-representative of the Arctic Coal Company, my best thanks to express for the friendliness with which I, by your engineer, Herr Gilson, hereabouts treated been have. Through the good offices of your representatives has it, to me, possible become, an important, scientific contribution to furnish, after the researches for my already-believed-to-be-lost comrade, Captain Hjalmar Johannsen, the well-known companion of Nansen on the Sleighing Expedition, me compelled had my-in-the-at-Virgo-Bay-Wellman-camp-location investigation to abandon, at least for a time. Similar good offices have I, for that matter, also, by the winter-expedition-conducting engineer, enjoyed. Permit me also to you the observation to impart that, to me, the experience which Herr Gilson, this summer, here, at Spitzbergen acquired has, as valuable for the company, as he, himself, holds, *is*, and, when once the line in working order is, will you your satisfaction with the hill-work have.

Unfortunately met I with you, this year, *not*, otherwise would I, to you, my several years experiences with reference to the by me inaugurated hill-work on the Bärenensel [Bear Island] communicated have. It would to me a joy have been when you the cost of tuition-by-experience saved might been have, which hereabouts always paid be must, which I, as pioneer, all such undertakings dearly paid have.

"After a happily ended hibernation and a completed sleighing expedition, on the topography of the northeast lands of Spitzbergen, I hope, in the summer of 1908, you to see here and will then, together with my comrade Hjalmar Johannsen, you, once more, heartily, personally thank."

"In my reports have I the excellence of the Spitzbergen coal, specially that by you furnished, maintained, and I read that this also in Norwegian journals printed appeared has. I hold the conditions on your side equally good as on the Bärenensel, apart from the greater distance, and I hope, to you, the there-found-coal, on occasion, sometime, to show to you to be able. Perhaps allows itself a combination to be found which from competition the sharp point remove would. Also the Seaman Naess has on your company honor conferred by his brave and yet prudent conduct of the *Monroe* in the Vorland, in contrast to the unfortunately ended Dr. Bruce expedition. Also, none but cheering impressions have I hereabouts received. And while I to you the same for all the future wish, am I, with respect, *Yours obediently,*

"Theodor Lerner

"P.S. In the later reports of the expedition will we the undertaking of the Arctic Coal Company commensurately set forth."

A Comic-opera Hero. This Lerner was a regular comic-opera hero. He had conducted a German expedition under Captain Rüdiger in the *Helgoland* in 1898, and circumnavigated West Spitsbergen and Northeast Land, and took deep-sea soundings and made some zoölogical observations. He was the leader of the second relief expedition which sailed from Norway in the whaler *Løvenskjøld* in order to rescue the hair-

brained navigators of the *Herzog Ernst*. He lost his ship, but managed to reach Treurenberg Bay on foot, finding Captain Staxrud and several men who had gone up from Advent Bay to salvage the *Herzog Ernst*.

He was described as a German journalist associated with a Berlin newspaper. Supplied with ample funds, he visited Spitsbergen several summers though no one knew exactly what he was up to. He spent one Winter on the island with Lieutenant Hjalmar Johannsen. In his capacity as a newspaper man with a keen nose for news he went posthaste from Spitsbergen to Tromsø to report that Dr. Bruce and his companions had perished of starvation on Prince Charles Foreland. His most sensational exploit was in trying to corral the coal-deposits on Bear Island. Dr. R. N. Rudmose-Brown says that in 1898 he marked off as private property certain landing-places in South Haven and Walrus Haven, where there is access to the coal-bearing rocks, and conspicuously painted the boulders on the beach with German colors:

On Bear Island. "The same Summer another German expedition, sent by the Deutsche Seefischerei-Verein to investigate fisheries, set up a few small huts on the ground claimed by Lerner, who was not consulted in the matter. Next Summer was more eventful. Lerner, traveling in a fast steamer, was landed on Bear Island before the end of May. The vessel returned south, to bring a German mining-engineer and several miners. No time was lost by Lerner in extending and consolidating his claims. Small huts were built at the corners of the estates, and boards, warning trespassers off his private property, were erected at every landing-place.

Lerner's Rival. "Then Lerner's rival appeared. This was an expedition sent by the Deutsche Seefischerei-Verein to continue the investigations begun the previous year. It had left Hamburg before Lerner, but had dallied on the way. Two trawlers accompanied the expedition. Lerner was expecting it, and thwarted all its attempts to acquire land or make use of its huts. Eventually a poor hut was built at a poor anchorage on the east side of the island, the only place where Lerner would

tolerate his compatriots. The fishery expedition then left the island. After a profitless visit next year the project was abandoned.

Swedish Explorers Arrive. "Lerner's next visitors were a party of Swedish explorers under Dr. J. G. Anderson. He received them with an armed guard at the landing-place, and after reading a long address on his rights to the island, gave them permission to continue their work. Norwegian whalers, who for several years had maintained a station at South Haven, were received in a similar way, but they treated this buccaneer in a more cavalier fashion. There was the possibility of a more serious situation when the Russian cruiser *Svetlandia* appeared. Undoubtedly she had come to investigate the German activity on the island, for at that time Russia felt a traditional interest in Spitsbergen.

"The Bear Island Company." "Fortunately, the cruiser's commander was not lacking in tact. Maintaining that his sole object was to raise the Russian flag over the ruined huts and graves of Russian trappers, he denied [disclaimed] any desire to interfere with Lerner and the Bäreninsel-Gesellschaft, as the German Company was named. The Russian flag was left flying over some ruins in North Bay. Lerner promised to take it under his protection, and the *Svetlandia* sailed for home. The Germans extracted a few tons of coal for their own vessel and returned to Hamburg in the Autumn. That was the end of the only German mining enterprise in Spitsbergen."

This precious possession was afterwards claimed by the Norwegians, as it had probably belonged more than ten centuries before to Erik the Red of Iceland.

Lerner's last appearance in Spitsbergen was during the very month when Germany started the World War. There was a story current in Norway to the effect that the Russian Government addressed a note to the German Government inquiring the meaning of the erection of the German flag on Bear Island and that the German Government had made haste to disclaim any knowledge of the matter.

It was said that German prospectors tried in vain to find the spot on one of the English companies' territory where oil had been discovered.

HERR JEBENS'S CLIENT. On September 8, 1911, John Gibson, the general manager of the Arctic Coal Company, while at Tromsø, received a note from Herr Theodor Jebens, the German consul, asking if the Company's domain on Spitsbergen were for sale. Gibson called on Herr Jebens, who refused to disclose the name of his client, but said he was "perfectly responsible and sincere in his request for conditions of sale, and that "the size of the cash-settlement would be no hindrance to the sale provided an agreement could be reached as to the value of the property."

Gibson wrote:

GIBSON'S SURMISES. "I told him that heretofore the Company had refused all offers to negotiate for the sale of the property, and that I was not in a position to give him any answer as to an approximate price or terms, but that owing to the fact that the property was so far from headquarters it was possible that the Company would consider an offer. He could not make an offer, but was very anxious to learn our terms. In further conversation I told him that our actual expenditures to date would be about $500,000.00 or approximately 1,800,000 kroner, and that a force would be left on the island this winter to insure 60,000 tons next year.

"There are only two clients he could have at the present time as far as I can see. Anker has had a representative of some large German coal-interests at Spitsbergen this Summer trying to sell his claims, and he passed through town two days ago, only being here one day. I have talked with a man who was on Spitsbergen with this engineer and who was with him in Tromsø and can find nothing to lead me to think he has met the Consul.

THE DUKE OF ALTENBURG'S INTEREST. "There was an expedition to Spitsbergen this Summer headed by the Duke of Altenburg, and his party have been here for the past four or five days, and they have met the German Consul. I rather

think that the inquiry has come from him, as he showed a very lively interest in the mines when on Spitsbergen, and he and party went through our mine twice.

"Jebens is a very reliable man, and if you have any desire to sell I think it would be a good idea to take the matter up with him either directly or through me. I will possibly finish up and be ready to leave here before I could get your proposal, and if you would like me to start real negotiations, which I would recommend, before I leave, I would suggest that you cable me to wait for your letter of instructions."

Mr. Longyear was not impressed by the possibilities of a sale.

Mr. Longyear's Reply. When the matter was brought to his attention he wrote to Gibson:

"I suggest that you say to Mr. Jebens that it probably would be impossible for us to carry on negotiations for our Spitsbergen properties without any knowledge of the customers we are dealing with. You might also tell him that we do not consider the property sufficiently developed to enable us to name an intelligent price, although, of course, any such property is always for sale at some price, and we have one mine developed in the best steam-coal in the world, and that the slight explorations we have been able to make during our development-work indicate that there is a very large quantity of this grade of coal, as well as immense quantities of ordinary steam-coal, and while we could not prove it in a way that would justify us in asking what the property is probably worth, we are satisfied that there are many millions of tons of coal on the property; that it is our intention to carry on exploring-work in a way that will enable us to form a more intelligent idea of the quantity of coal on the property than is now possible to obtain. You might also say to him that no price has ever been placed on the property, as the owners have had no occasion to consider such a matter, but that, if his parties care to consider the purchase at say $5,000,000 you would recommend your principals to consider it seriously.

"What I should like to develop would be the earnestness of Mr. Jebens's parties without committing ourselves to anything.

That is why I suggest that you put the matter forward as your idea of the price you would be willing to recommend.

"I do not like to carry on negotiations with parties who refuse to disclose themselves, and my suggestions are my idea of the method to develop either who they are or how much in earnest they may be, but without committing ourselves to anything until we learn more about whom we are negotiating with.

"If these parties are at all in earnest we may develop an interesting situation." These negotiations probably resulted in the option to Baron von Gagern in 1914.

The following February, Turner wrote from Tromsø:

Other Inquiries. "It seems not unlikely that we might be approached from time to time regarding our willingness to sell the Spitsbergen properties. You will remember that last year there was an inquiry through the German consul here, and also there has been a little correspondence with the Trafikaktiebolaget Grängesberg-Oxeløsund at Stockholm. Mr. Gibson wrote them last fall suggesting the possibility of a sale, and within the past week we have had a wire asking for the name of the present manager. Also, other inquiries of this nature are apt to come up. Do you not think it would be well to discuss this matter at the first opportunity in America, and let me know privately what your attitude would be?"

Nothing further was heard at that time of the German "nibble," but both Mr. Ayer and Mr. Longyear were becoming increasingly desirous of ridding themselves of the burden of the mine and its expensive development. Persons of various nationalities and representing different interests in Sweden and Russia and in Germany again and again manifested a disposition to negotiate for taking over the Spitsbergen properties. Turner on one occasion went to Sweden, or Swedish Lapland, to confer with a Stockholm capitalist who had entered into some correspondence regarding the matter; but the War put an end to the project which the Swede had intended to bring before his associates.

One person went so far as to take an option on the American properties for Russian exploiters, and had interviews with the

Russian Ministers. Apparently they wanted to get the report of a geologist on the value of the Spitsbergen mines, for Mr. Longyear wrote from Spitsbergen on July 31, 1914:

Mr. Longyear's Letter. "It may be that a geologist can come to a place like Spitsbergen, spend a few weeks in looking over the country and then form a comprehensive opinion of a possible business situation, which must be created, but I should not have much confidence in such an opinion. Our work here we regard as an exploration. The business, or commercial situation, is still to be created, and will be whatever the operators here make it.

"I have heard nothing of any meeting of the Powers in relation to Spitsbergen, and am sure that the Government of the United States had no part in it. As the American interests are the only ones of any consequence whatever in the Archipelago, any meeting of Powers to discuss Spitsbergen which omitted the United States would have no force here. I doubt the sincerity of the reasons given by the Russian Ministers. I know of some excellent reasons why the coal of Spitsbergen would be most desirable to the Russians. Russian trespassers have recently appeared on some of our Spitsbergen property, and there may be visions in Petersburg of acquiring the property in other ways than by purchase. If such should be the case, I am very sure that they are bound to be disappointed. However, probably any discussion of this situation is now of no use."

The option was shortly afterwards surrendered, and the Company was at liberty to negotiate with other parties.

3. ERLING EINAR ANGELL THIIS, PROMOTOR

Now Herre Erling Einar Angell Thiis appears once more on the scene. Herre Thiis was a man of about forty-four and fairly well-to-do. He had graduated from the Polytechnic High School at Hannover and the Kristiania Handelsgymnasium; had been employed in Berlin, and had afterwards carried out several important light and power contracts in Norway. He was well-connected, and was reported as "solvent

and entitled to reasonable credit." He spoke and wrote English, though some of his English letters, with his use of J for I are not always models of idiomatic writing.

In September, 1913, he wrote to Messrs. Ayer and Longyear offering to sell them his interest "in a big area of iron-ore fields near the well-known Sydvaranger Jronore mines." He assured them that he asked for this property only half of what Mr. Anker required for his. "It is eighty-five nutings in all," he added.

A Fruitful Suggestion. Mr. Longyear, who was probably puzzled by his "eighty-five nutings," replied that he did not care to invest, but suggested that possibly the people whom Thiis represented "might like to buy the Spitsbergen coal-fields."

Thiis immediately snapped at the suggestion and began to busy himself with the greatest assiduity to approach the capitalists of Norway, and with the view of enlisting them in a syndicate for that purpose. He bombarded Mr. Longyear with communications, some of them in perfect German, most of them in his odd, imperfect English, and finally Mr. Longyear had to tell him bluntly that he did not wish the Spitsbergen property "hawked about Europe and offered to 'Tom, Dick, and Harry' in the hope that some of them might be interested to buy it. He added:

A Severe Rebuke. "If you have people ready who want the Spitsbergen Coal Mines, we are ready to talk with them, if they are of sufficient financial responsibility to warrant them in undertaking a deal of such magnitude.

"The correspondence I have had with you does not seem to indicate that you have such customers ready, but that you are seeking for them. This we do not want done. You will, therefore, please discontinue such unauthorized offerings of our property.

"It will not be of any use to continue this correspondence, as nothing but misunderstandings can result from it."

Wire-pulling. But the irrepressible and indefatigable Thiis was not to be put down: he was already exerting all his

enticements, and we shall soon see that he was pulling every wire possible—and almost succeeded in bringing affairs to a head.

He tried to create a sort of panic in the Arctic Coal Company by showing on the authority of the Norwegian and Russian newspapers that "a private person had proposed the Russian Government to occupy Spitsbergen at once," and he added "We do not fear the Russians as much as the Germans, who have intrigated highly on Spitsbergen."

He copied a supposedly English translation of an article written by a Russian named Agafelof for the Petrograd "Novoye Vremyä," which, after speaking of the immense coal-fields owned by Russians on Spitsbergen, and referring to the activities of the "Grumant" Company, continues:

A Russian Article. "Spitsbergen has belonged to Russia from old time and must be brought back again to Russia, and now is, after my opinion, the best time to do so. Our english friends will have no objection to this, and the norwegians and the swedes have a very weak right to the possession of the islands. The germans, who stretched out the hands for the islands and intended to build a coal basis for their fleet there as a threat against Russia and England, must definitely be driven out, and their coal concessions go over to the russian government. The excellent Spitsbergen coal will according to calculations cost twelve kopek per pud* in the White sea, and in a coming ice-free harbor on the Murman coast 11 kopek . . .

"The government must take Spitsbergen firm in his hands. Jt must be done now, immediately, otherwise it will be too late. One must go on with working of the fields, in order that one will be able to export coal to the White sea in the season 1915. When then the Onega-canal will be built, Petrograd will have coal, like the Cardiff coal for 15-17 kopek pr pud, and this will be our own coal, not foreign coal. Before it will be to late, we must establish us firm on Spitsbergen. It

* A *pud* (pood) is about thirty-six pounds avoirdupois.

would be the best if the government went on with the production on Spitsbergen. At present, under the difficult position on the money-market, great capitals will scarcely be found by private entrepreneurs, to work in a great scale and satisfy our claims for our fleet, from Petrograd, from all the North, and from the Murman railway, of which the distance from Kandalaksta to the end-point on Murman, ca. 399 verst, will go through nearless woodless land."

Thiis, among his other machinations, had not forgotten the possibilities of Russia, and he got into communication with people in Moscow.

4. FURTHER NEGOTIATIONS

It had never been the intention of either Mr. Longyear or of Mr. Ayer to continue taking an active part in the management of the Spitsbergen mines when once they were placed on a practical commercial basis. Their home interests were sufficient to absorb their energies, and the operation of the enterprise was too far removed from the ordinary business activities of the owners. They were ready at any time to dispose of the Spitsbergen properties.

The English and Scotch companies which had expended £50,000 with distinguished lack of success in promoting their ventures on the archipelago, had more than once, as we have seen, suggested an amalgamation, but their offers were not attractive. The Arctic Coal Company had no desire to pull other people's chestnuts out of the fire. The British Government was strangely indifferent to a region which had once been profitably British.

European Rivalries. This was not the case with the other northern countries of Europe. Russia, Sweden, Germany, and Norway were alive to the value of the mineral-deposits of this no-man's land, and the management of the Arctic Coal Company were shrewd enough to play them against one another. Turner was strongly inclined to favor Russian parties, and in 1913 he had recommended as a suitable go-between, a mining-engineer who was attached to mining-works in Russia,

and had a wide acquaintance in official and financial circles. He reported that the Russian Government were cognizant of conditions on Spitsbergen, and through the chief geologist, Mr. Chernuishóf, who had spent several Summers there, were well aware of the value of the Advent Bay property. Chernuishóf was reported as not too optimistic regarding the economic situation prevailing in Spitsbergen—though there was no "economic situation" there!—but the engineer's clientèle hoped that they might prevail on the authorities to take over the property as "a very valuable asset to the Government for strategical and political reasons."

Turner's Discouraging Letters. Turner's letters about this time were particularly discouraging, and Mr. Ayer was ready to abandon the enterprise and sell out at the first opportunity. He suggested that Mr. Longyear should go abroad and close up the negotiations. Mr. Longyear replied that probably Turner was inclined to be too pessimistic in his views. He felt that though the physical difficulties developing in connection with the enterprise were formidable, still such deposits of magnificent coal and a good market within easy reach ought to enable them to make it profitable. He was willing enough to sell, as the oversight of the enterprise had become burdensome; but he had no intention of sacrificing it, for it was in excellent shape to bring to the attention of eager rivals.

Dr. Voigt's Interview. Mr. Longyear, on his way to the international conference in June, 1914, while stopping over night in Hamburg, had a long interview with Dr. F. W. Voigt, a professional geologist whom he had met the preceding year at Advent Bay.* Dr. Voigt made no secret of being the representative of German, Russian, and French bankers who, with a capital of twelve million marks, and with the influence of the Russian Government behind him, were interested in acquiring coal-mines in Spitsbergen. They had already bought some of the Norwegian claims at Green Harbor, and Dr. Voigt, who had prepared an elaborate and remarkably accurate report, was recommending that the best and cheapest way for

*See page 227.

Russia to annex Spitsbergen was to buy the American Coal Company's property, and then increase the equipment so as to produce 600,000 tons a year, employing a thousand workmen on three-year contracts.

A Serious Purpose. Mr. Longyear judged that there was really serious purpose on the part of the bankers who had engaged Dr. Voigt, and he expressed his willingness to enter into negotiations with them at the close of the International Conference.

Baron von Gagern's Overtures. Shortly after arriving at Kristiania, he received a visit from Rudolf Freiherr von Gagern, a Berlin Doctor of Jurisprudence, who came as the representative of a syndicate of Russian and German capitalists with a view to purchasing the property of the Arctic Coal Company.* A high price was named, but the Baron made no objection, and surprised Mr. Longyear by asking for a two-months' option in order that their engineers might look over the territory. The option was granted, but when Mr. Longyear was informed that the same syndicate was negotiating with the Norwegian trespassers, he regretted having done it. He suspected also that Johan Anker's readiness to effect a settlement of the controversy regarding the Green Harbor property was due to Von Gagern's presence in town.

Von Gagern's Engineers. Von Gagern's engineers appeared in due time at Advent Bay where they were entertained for twenty-four honrs with every courtesy and consideration, through their behavior was characteristically arrogant and tactless. Their examination of the mine was so perfunctory and superficial that Mr. Longyear came to the conclusion that Von Gagern's acquiescence in the terms proposed was mere "bluff," and asked him to surrender the option.†

Germans Eliminated. The outbreak of the Great War effectually put an end to all possibility of negotiations with German purchasers. Eight English war-ships were sent up to Spitsbergen waters, and ultimately all German claims, includ-

*See page 318.

†See page 333.

ing the wireless station at King's Bay, were seized by British forces. The Germans had prospected for oil, and it was an open secret that they had been successful in locating a supply. In a "strictly confidential" letter, Erling Einar Angell Thiis wrote Mr. Longyear under date of March 3, 1915.

Oil Reported. "Short time ago J accidentally got some interesting informations which J will give you up, and ask you if the same have interest for you, and if we can do a business out of it together. J assure you that J have got the informations in a fully gentlemanlike way, so that J have the right to try to do something out of it.

"The matter is: *Petroleum* is to be found on Spitsbergen, and J know exactly where it is. German experts last Summer found it, and they have given notice to the German ministry of foreign affairs, quite secret. The matter was building of a german company in Berlin last Summer, to utilize the fields, but there is no information given to the norwegian ministry here. Jt shall be a secret matter. Some norwegian gentlemen are interested in it. As J know the geological litterature of Spitsbergen very well, J have found the district where Pertoleum found and J have got this stated, that the place is the right one. There are put up one or some plates on the territory with necessary information in order to take the land in possession in a correct way, but J feel sure, that the germans will have no occasion to renew these sheets, before the war is finished."

Thiis proposed to annex these lands and give Mr. Longyear seventy-five per cent. of the profit. He added: "The germans ment to be able to do quite as good a business in Pertoleum as in coal." Naturally Mr. Longyear did not care to enter into such a questionable deal.

5. A RUSSIAN PROMOTER

Russia and Sweden seemed to be equally promising possibilities, even if Germany was definitely eliminated. Thiis had his weather-eye cocked for any indications of an ice-blink He had already made some efforts to interest Russian capital.

He had an acquaintance in Moscow in the person of a British subject, who had resided in Russia for many years as agent for various typewriter and other manufacturers, but, having reached the age of sixty, had retired with a fortune and was reported to be "several times a millionaire." Through his wife he had "excellent connection with several of the ministers." He had already taken an option on Anker's Green Harbor claims, but had let it go with a loss of several thousand rubles, and was naturally a bit cautious about similar investments. But he wrote to Thiis that there was in Russia "a strong current in favor of developing the trade to North Siberia," and therefore there seemed to be some reason for considering favorably a scheme for enlisting Russian capital in the Arctic Coal Company's proposition. But he demanded an opportunity for dealing with Mr. Longyear directly. "We cannot afford losing time," he wrote, "by corresponding in a roundabout way; besides this, the impression at St. Petersburg is not favorable if I do not hold direct powers for negotiating from the owner."

The Russian Promoter's Demand. He therefore demanded that Mr. Longyear should for two years, if necessary, not disturb his work in Russia either by transgressing the boundaries of his "territory or by admitting competing Powers." He desired also to be hired for all his time at a salary of ten thousand rubles a year, the amount received to be deducted from his commission in case the negotiations succeeded. "Mr. Longyear," he wrote, "will have to consider the above named amount as my consultation fee; it will be the consultation of perhaps two years' duration (plus a large number of travels and lots of cash outlays, etc.) of one of the most experienced men in Russia whose *word* is better than twenty contracts. Mr. Longyear would have to consider me, so to say, as his solicitor over here, who would be bound to let him have the best advice and work that he can deliver. "If I were encouraged by Mr. Longyear," he added, "he could rest in peace."

Thiis did not like his friend's attitude; his enthusiasm

for him quickly cooled, and he took pains to let Mr. Longyear realize it.

"Business is business," he wrote, "and I am at liberty to give you my candid opinion as to him. I hold that we can get some results in Russia, but I am positive that I know a better way than that suggested. I am many times in consultation with a Russian friend of mine, who is very enthusiastic about the Spitsbergen coal-fields. He was personally with Professor Nansen this Summer at North Siberia and the White Sea. He has corresponded with St. Petersburg many times about this affair, and has had personal conferences there about it. Then I find that my agent friend's services come very high. If he were a First Power, then one could pay him well, but which, I can candidly say, he is not. He is more academic than practical, and this business is purely a practical affair."

In normal conditions it is possible that Russian capital might have been secured. Russia was awake to the need of having an accessible coal-supply. The mysterious Grumant Company had come out of its hiding, and, as if to pave the way to respectability and mercantile standing, was on the point of paying the long arrearage of its indebtedness to the Americans who had almost given up hope of getting any satisfaction.

6. JOHAN ANKER'S PROJECT

Johan Anker, not discouraged by the failure of his negotiations with the Berlin capitalists, now turned his eyes to Russia and persuaded Mr. Longyear to extend for another year the option on the Green Harbor property. His friend, Consul Jonas Lied, who had influential connections in Petrograd, was so fully assured of being able to raise the necessary capital that he had already paid him 30,000 kroner, and was promising to pay him a similar sum on the option to be extended another twelve months.

Russian Cabinet Ministers Interested. Anker himself went to London to confer with Turner, and readily paid

him $6000 for a ten days' option on the Advent Bay mine. From London he went post-haste to Petrograd, where he found that several Cabinet ministers had become interested in the Spitsbergen proposition on the ground that in the prospect of England's effecting restrictions on the export of coal, these mines might be absolutely necessary for providing fuel for the use of the new railway skirting the Murman coast and tapping Alexandrovsk, a port essential to Russia, as it was open throughout the year. These Cabinet ministers proposed that the Russian treasury should lend certain banks four million rubles for ten years without interest, the banks on their part to put up two millions more for expansion and operation.

Turner in Petrograd. The prospect appeared so roseate to Anker that he wired to Turner to join him immediately at Petrograd. Turned reluctantly obeyed the summons, taking with him Anker's lawyer and co-trustee, Nygaard, and his own associate, Coleman, while Gilson, in response to a telegraphic communication, proceeded from Tromsø to Boden in Sweden, where, on June 22, Turner met him on the train and rode with him all night as far as Karungi, discussing plans for the Summer, and typing the contracts, instructions, and orders for conducting the season's business at Tromsø and Advent Bay.

Turner and his two associates reached Petrograd Friday night, and were met by Anker and Lied. During the next five days they had numerous conferences with influential men, including the Tsar's chief coal-mining engineer, Graf Berg, the head of the Finnish railways, and Emanuel Nobel, famous for the enormous fortune which he had made in manufacturing explosives and in exploiting the Baku oil-fields, and founder of the munificent prizes for distinction in science, literature and the cause of peace.

Political Factors. It became quickly evident that political considerations largely controlled the situation. Turner was convinced that "no ordinary business-principles entered into the matter." Thus a turn of the cards might have suddenly made the sale effectual; but the Emperor and his Cabinet

were at that very time at the Galician front, where the situation was becoming desperate. The War Minister was on the point of being deposed: several others were uncertain of their tenure of office; the complete cessation of grain-exports and the general uncertainty made it hopeless to expect government aid. The group of bankers who had been at first eager to consummate the deal refused to do anything about it unless the Government substantially backed them.

Adverse Conditions. Turner returned from Russia, and Anker wrote that no possibility had been left untried, but that odds were against them. His option expired. Subsequent letters from him showed that this disappointment had not quenched all his hopes of still making a successful deal. In this he was encouraged by Turner.

Thiis's Judgment of Anker's Scheme. Thiis, who let nothing escape him, was well aware that Anker had got Turner to go to Petrograd. He wrote Mr. Frederick Ayer that there was no chance of Anker's succeeding, since he had been informed that there was no interest in Russia in such a speculation. On the other hand, he assured him that the Norwegian State Railway was alive to the uncertainty of securing coal, and that there was no other place than Spitsbergen where it could be had. "The Railway," he said, "will buy the coal and must buy it; then it would be an easy matter for the banks to buy the fields."

He wrote Mr. Longyear on April 14 even more explicitly, reporting that the "Norwegian-Russian gentlemen" had planned to get an option of Anker, also on the properties or claims of both Hjorth and Schröder, but his opinion was that such a scheme was impracticable. Ytteborg was suing Anker for not having fulfilled his contract; Hjorth had been ejected from the directorship of the Teistenfjeld Company, and a law-suit was distracting the Stavanger Company, which controlled a "great deal of layers" at Spitsbergen. So there was a general state of chaos.

War-made Millionaires. Nevertheless the Great War was making many millionaires in Norway, and Thiis was

shrewd enough to find his most promising field at home. He informed Mr. Longyear that Mr. Kjelland-Torkildsen, the chief director of the Centralbank for Norge was open to a proposition. This man, he wrote, had applied to him "in order to bring him a good coal-mine on Spitsbergen. He renewed his question some days ago. He has absolutely great interest of this matter as a national one of great importance (of course). To bring the norwegian claim-owners to agreement is a thing that requires more christian patience than J have, as J mean that the only thing the norwegians agree in is not to agree in anything. J think it however possible to build a norwegian company, when Mr. Kjelland-Torkildsen will take the business up with me. He is a capacity of first class as bank-director and he has confidence to me, as he knew that J has been Mr. Anker's man of confidence about ten years. My interests do not in any way conflict with Mr. Anker's, as J has not a bit to do with his business, that now is in the hands of a solicitor."

Dubious Characters. One negotiator was greatly feared and disliked by his business-associates; he was arrogant, domineering, thoroughly selfish and unscrupulous. Turner quickly gauged his character. He had scarcely more confidence in another, who, he wrote, was "by nature and by training a liar, an intriguer, and a petty trouble-maker." In one of his letters he said:

"There is nothing he would like better than to get Marquette, Boston, and Tromsø at cross-purposes in the negotiations with him, and then later claim bad faith, damages, commissions, et cetera. I have been so thoroughly convinced, both by what I have seen and by what I have heard of him, that he is most undesirable, that I am really afraid he is not the right man to work through in Kristiania, and I am afraid we shall only soil our fingers by touching him. But, as matters stand, we must continue to treat with him until he has had a fair and untrammeled chance to show what he can do."

Turner's Suspicions. This negotiator knew well that Turner was empowered to represent the American interests in Norway, yet, according to Turner, he was trying to open in-

dependent negotiations with Mr. Longyear, "to the confusion of the business," and was also proffering false charges against Turner, who declared that he had "neither the time nor the inclination to be drawn into a discussion with this little shyster in Kristiania," and reported a telegram from Herre Eger, the general manager of the Norsk Aktieselskab for Elektro-Kemik Industri and the Hypothek Bank, "one of the largest commercial institutions in Norway," who had been, next to the Prime Minister, the most active supporter of the project, notifying Turner that they would not take it up as long as this party was promoting it.

This party, serene and debonair, perfectly unmindful of slurs and snubs, with his mind made up to win out in the great venture, sent forth a deluge of letters and telegrams couched in ludicrous Norwegian-English, which added a comedy-element to the slowly-developing scheme.

7. FUTILE FINESSING

The Summer and Autumn passed in futile and vexatious finessing. Turner was out of all patience, and had no faith in these maneuvers. "All the people in Kristiania," he wrote, "were quarreling with one another and jockeying for advantage. The Prime Minister (Gunnar Knudsen) and the Norges Bank would not agree to bonus-shares, while others insisted that their subscription must be accompanied by bonus-stock. Finally, they would not pay for the option and let it be written in another party's name, he raising the 3000 kroner. The option-holder immediately swelled up like a pouter-pigeon, and said that now the banks and every one else would have to come to him if they wanted to talk business. . . .

TURNER'S STRICTURES. "I have an idea," he went on to say, "that nothing will come of the option at present, and certainly it will have a bad effect on the business. Likewise, those children in Kristiania now seem to have quarreled with one another to the breaking-point."

"We have the spectacle of one trying his best to double-

cross us and the Prime Minister at the same time; another intriguing with both factions, but probably overplaying his hands, so that he loses at least half his following, and at the same time trying to add to the gayety of nations by getting Boston, Marquette, and Tromsø working at cross purposes; the Prime Minister and the Norges Bank on the one hand fighting with Eger and the Central Bank on the other, and the whole gang running round like stampeded chickens."

Turner began to doubt if anything would come out of the mess, and he felt more and more certain that the optionee was not the man to get them together and carry the thing through: "He plasters his hair down with perfumed oil, always wears dirty white vests, and holds onto the lapel of your coat when he talks to you."

Bank-Director's Meeting. He gives an amusing account of a meeting of the bank-directors, in which one asserted that the Arctic Coal Company could not get along with Norwegian laborers and employed Russians exclusively. At another meeting, when Turner was unable to produce any papers, since they were all at Tromsø, he refused to accept a telegram from Mr. Longyear to the optionee, referring to Turner as his representative; he declared he would not negotiate without written authority and credentials though he framed up a plan whereby the Arctic Coal Company should receive only stock and no cash. Turner applied to the optionee for confirmation of the price demanded by Mr. Longyear in a letter written in April, but he flatly and absolutely denied that any such letter existed. Turner wrote, "The little rascal lied himself black in the face."

The Question of Ships. One negotiator declared that the Arctic Coal Company owned two ships, and insisted that they should be included in the negotiations, and when Turner explained that the Company owned no ships, but that they belonged to two different corporations, the astute negotiator threw the papers on the floor, banged with his cane, and intimated that Turner was a liar. He then charged that the Company dumped the coal in the open so that it froze into a

solid mass and had to be blasted out with dynamite, thus spoiling the product and making two expensive operations. He told the committee that he intended, if the deal went through, to build a shed over the stock-pile; and the committee assented, not realizing that a steel-roof frame and a floor for two million square feet of "shade" for the 200,000 tons for which he was planning, would cost more than their entire working capital. Even for 30,000 tons, a space of 2000 feet long by 100 feet wide would be required.

Light-Houses for Daylight. This "party" asserted also that shipping-operations in Spitsbergen were greatly hampered because there were no light-houses on the coast, and he proposed to arrange at once with the Government to build a large number and thus obviate the difficulty. No one pointed out that during the shipping-season at Spitsbergen there were twenty-four hours of day-light every day. Turner said that the committee sat in awed silence, profoundly impressed by the intimate knowledge which the "old rascal" possessed regarding the property, and the grasp which he had on what was needed to rectify the mistakes made by the Arctic Coal Company in developing it. "The whole meeting was certainly an opéra bouffe," and Turner wondered "what was the plot of the sketch and who wrote the scenario." He thought it hardly worth reporting except as illustrative of the way business was conducted by the "piratical gang" that held sway in Kristiania.

XX. THE CONSUMMATION

1. ANKER'S MEN

DURING these months the negotiations with regard to the sale of the Spitsbergen properties were spurting intermittently like fire along two fuses attached to opposite sides of the same mine. It was an exciting gamble on the question which would first bring about the explosion. Turner, carefully watching, pitted one negotiator against another, encouraging both with shrewd impartiality.

Anker and his Russian colleague still cherished the hope that they might be able to interest Russian capital, believing that no other country than Russia was in a position to make the deal. They engaged a fully-qualified mining engineer to go to Spitsbergen and furnish a careful report on the mines to the syndicate represented by them. The engineer had been in the service of the Russian Government, and had reported on coal-mines in all parts of the Empire. He was ready to accept this commission, and Turner's permission for a full inspection of the Spitsbergen territory was asked for. Turner wired a cordial assent, and at the same time sent up a letter to Dalburg at Advent Bay to give the expert every facility.

THE ENGINEER'S MISHAP. The engineer sailed from Tromsø on July 27 on the smack *Onsø*, taking with him Anker's engineer, Karl Bay, and nine other men. The smack was caught in the pack-ice and imprisoned for nearly a month. She broke her propeller in the Foreland Sound, and had to be towed by another small vessel to King's Bay, where she was beached and fitted with another propeller. She then forced her way to a point off Green Harbor, where she was caught, together with three of the Arctic Coal Company's colliers. A strong current took the ice-pack out to sea carrying the *Onsø* with it. A heavy swell was running, and the vessel was in

great danger of being ground to pieces. The engineer and the nine men, discovering that the crew was preparing to abandon her, started across the ice to the shore, leaving all their goods and supplies. Dragging two boats, they made their way under tremendous hardships and risks to the north tip of the Foreland. They marched fifty miles down to the south end of the Island, and got across to Green Harbor where one of the Company's colliers picked them up and brought them back to Tromsø.

Takes Scotch Leave. The Russian engineer was so disgusted that he did not take the trouble to call on Turner or any one else, but departed for Russia the same day, declaring that he never wanted to see Spitsbergen again, having had altogether about as severe an experience as a man could endure. He did indeed have an opportunity at King's Bay to inspect Anker's claim, which comprised a caved-in pit on a coal-seam of doubtful age, folded by a monocline, so that erosion exposed two edges of the same seam, one just above the other, "with the whole formation cut off by a fault of more than 5000 feet vertical throw." Turner estimated that this "isolated island of erosion" contained not more than 100,000 tons, and wrote that if the Russian was any engineer at all he must have been disillusioned at his first sight of Spitsbergen coal at King's Bay.

Disillusionment. He had also a chance to see the Ayer and Longyear working at Green Harbor but nothing else, as "the little scratches" that other prospectors had made there had caved in. Green Harbor was totally deserted. The Ayer and Longyear men had long before departed, and the three men left by Anker in accordance with the terms of his option had got tired of waiting, and had deserted before relief could get to them. "Green Harbor must have looked pretty sad," wrote Turner, "to a man who had come all the way from Petrograd and risked his life for six weeks to see the 'big coal-mines' there." When he got so far he refused to go to Advent Bay, naturally supposing that the vaunted mine at Longyear City was equally fraudulent.

It may be easily imagined what kind of report he rendered to Petrograd.

On September 12, Anker's Russian associate turned up in Tromsø, having hurried back from Siberia, and was chagrined to learn of the failure of the Russian engineer's expedition. He informed Turner that he was only temporarily a Russian citizen but was by birth and instinct a Norwegian. He had found himself somewhat unpopular in Norway by reason of his attempt to sell the Spitsbergen property to Russia.

The Milk in the Cocoanut. Afterwards, Turner learned the true inwardness of his failure to do any more for the Russian syndicate. It seems by his own confession, when actually pinned down to facts, that the Central Bank had considerable interest and influence in the Russian-Siberian Company, of which this man was the manager, and that he had been summoned in November and ordered to stop negotiations with the Arctic Coal Company. He dared not act contrary to these orders. "Thus," wrote Turner, "the Norwegians have finally bluffed every one out of the negotiations, so that they now have a clear field, and doubtless feel that they are in a position to dictate their own terms. Since of course they will never tell that the Norwegian group has finished negotiations, as it is the Norwegian policy to play dog-in-the-manger and keep Russia out of Spitsbergen even if they do not do business with us."

Turner considered that the chance to sell the mine in Russia was gone, and that it could be definitely dropped from consideration—for the time at least. His dealings in this connection had convinced him that Anker was a man of integrity—"an exceptionally good Norwegian."

2. NEW NEGOTIATIONS

The optionee, fertile in devices, all this time kept his courage undiminished. He had soon discovered that one man, on whom at first he chiefly relied, was a shrewd and unscrupulous trickster, and was blocking his moves at every turn. He asked and obtained an extension of his option, and wrote: "This

man was quite impossible, but J am in relation with most of the earlier subscribers, as they find the business very good. Besides J work together with some other very good people here who also find the matter of the highest interest for Norway."

A Survey Offered. Turner took Adolf Hoel and another State geologist and mining expert, named Svalheim, up to Spitsbergen early in September, and gave them every opportunity to make a complete survey. He stayed with them every moment, and showed them over the mines and the prospecting-holes and the entire camp. He walked them over the hills and the valleys; he took them in a motor-boat along the shore where the coal outcropped. Gilson, Dalburg, and Bryan were also indefatigable in helping to give them a comprehensive view of the works, and were enthusiastic in praise of the coal and the possibilities of the mines.

Experts Impressed. When the two experts were loaded on the *Kwasind* on September 20 they were duly impressed, and they reached Kristiania without an untoward incident. The option was extended to October because of the ice-delay, and that gave a month for working with the capitalists. The optionee claimed that the Prime Minister was deeply interested; he let it be known, however, that if Norway failed, he had wealthy connections in Sweden.

Six Reasons for Norway. But he relied chiefly on the necessity which the Norwegian railways were under of procuring coal; in regard to this he was supported by the report Hoel and Svalheim had prepared, and which had been subjected to the criticism of Mr. Holm Holmsen, "our first mining-director in Norway." This report adduced six principal reasons why Norway should possess the Spitsbergen coal-mines: the abundance of coal—one-hundred million tons on one-seventh of the area; the quality as determined by many analyses and proved by all the principal users of it; its immediate practicability; the experience of the Arctic Coal Company; the clear title, and, finally (in this cryptic bit of English-translation) "One can spare interest in the working period."

A Business Nose. He sent Mr. Longyear a translation of an article which had appeared in the Norwegian mining journal "Bergwerksny," which urged the State to buy the Spitsbergen coal-fields, and regretted that "the Norwegian State in due time has not understood his interest on Spitsbergen. It is possible," it said, "that the coal-fields on Spitsbergen will not turn out successfully, but the contrary is also possible, and we find that one may take his measure for all eventualities." The optionee thought that the syndicate would not *loose* the business for a difference of a million or so, and he said, "You must rely on my business nose, Mr. Longyear." In another letter he informed Mr. Longyear that he was now operating for his own account and had "no conspiration with the banks."

An Expiring Option. Turner spent three weeks in Kristiania in November, arriving there four days before the extended option expired. He found the situation greatly involved, many cross-influences at work, and progress almost at a standstill. To his surprise, he discovered that Hoel and Svalheim had gone to Spitsbergen as personal representatives of the optionee, and that the syndicate disavowed all connection with the expedition and would not accept their report. "No Norwegian," he wrote, "has any notion of buying under the terms of the option. Every one was jealous or suspicious of everyone else connected with the affair. The one who controls the situation has decided to kill or drop the business pending his pleasure in taking it up again, even if it wasted a year, so that he might secure a lower price and absolutely control any company that might be formed."

A Redoutable Capitalist. When the Prime Minister, who was personally but not officially interested, suggested to one of the negotiators to call a meeting, he told him to keep out and let him handle the matter. All were mortally afraid of this man. Turner and the optionee called on him and were bluntly informed that they must not deal with any one but him. "He then roasted the optionee, took a few shots at us, criticized Americans and American methods, also slammed most of his Norwegian associates, and concluded that nothing

could be done till the next year when he would send a party to Spitsbergen to investigate."

He demanded for himself a free option for a year, access to the Company's office, and use of all reports, books, correspondence, contracts, records, and accounts from the beginning, or else he would not touch it and would advise all his associates to withdraw: "he would see anyhow that they did business with no one else; he could buy at a much cheaper price the wonderful coal-fields at Green Harbor which were every bit as good as those of the Arctic Coal Company. Things had not been done there to suit him, he knew all about it; the mine was opened in the wrong place; the dock was in the wrong place and badly constructed; the rope-way was of no use except to transport supplies. If he took it over he would revise the whole business and get out a million tons a year and make a profit of thirty per cent. When he was asked whom he was speaking for he gave no satisfactory reply. Turner told Mr. Longyear that "many of his principals gave him the impression that their ancestors were inside Jerusalem at the time of the siege."

Turner had interviews with some of the men whom the optionee was trying to enlist in the operation, but found that all of them, however much or little they were interested, expressed their fear and distrust of one leading capitalist. There seemed to be a "perfect maze and network of personal schemes, jealousies, and hatreds, each man criticizing the other and telling of his discreditable past. They all agreed that one man was a liar and a robber, but eventually all admitted their impotence and confessed that they would not dare to incur his enmity by moving contrary to his wishes."

Unanswered Letters. After delaying a fortnight longer Turner addressed letters to all the principal personages on the optionee's list, but got no satisfactory replies from any of them; indeed, only three replied within a reasonable time. Finally one submitted an unsigned and absolutely unauthorized proposition which Turner immediately rejected, stating in his reply that it did not meet the Company's requirements, and

they would and could not be a party to any such agreement. Finding that there was no readiness to conclude the business, he left Kristiania on November 22, advising the optionee by letter not to work actively for a few months, but to lie low, though still acting as Mr. Longyear's personal agent. His object was to give another member of the group of possible purchasers an opportunity to consult with others without the optionee's interference. He expressed some indignation at being obliged to pay fifty kroner for the translation of the document he had received. He might have complained of the style in which the English translation was couched, for like most of the work of "authorized translators" engaged by the Company, it would not have passed muster in English A at Harvard.

Apology for "Unpoliteness!" When the principal negotiator found that Turner had gone to London he sent him another proposal and a sort of grudging apology for his "unpoliteness" in delaying his answer. This proposal was in Norwegian, and Turner replied that he would have it put into English and submit it to the Company when he reached Boston about the first of the new year.

Money Plentiful. The optionee was still optimistic. He wrote Turner on December 9 that money was plentiful and that many new companies were forming: nine had been announced in a recent number of the "Aftenpost," while the Sydvaranger Company, which had originally proposed to subscribe 1,500,000 kroner in the Spitsbergen Syndicate was greatly increasing its capital. He repeated that the Prime Minister had "asked him newly again how matter was going on," and the General Director of the Norwegian State Railway "said me I should come to him at once. When it was clear with the Great Mogul then he would take affair up." And Turner's last advice to him was that he "must not let the matter drop or grow cold," though he suggested he should not be too aggressive. The optionee now hoped to get his brother-in-law interested. He wrote that he possessed about twenty millions, and, appropriately enough, was "one of the greatest ship-owners in Scandinavy."

3. STIPULATIONS

Turner returned to Boston in January, 1916, and as his services were no longer required by the Company, accepted a position with another firm, and was sent to Peru, where, prospecting in the depths of almost inaccessible mountains at an elevation of more than two miles, he contracted pneumonia and appendicitis and almost perished from exposure and all minner of hardships.

He expressed his gratitude to Mr. Longyear for expressions of confidence in him, and added, "I can assure you that we have been fair and straight throughout with these people, although I know we have not had similar treatment from them in return." He did not see how "any clean business" could result from "this muddy pool in Kristiania;" but after the leader of the gang went off for his month's vacation, he managed to get a few of the "saner ones" together and framed up a little business once more. "Whether he will break this up when he comes back, or whether the optionee will get in wrong all around down there and spoil the chances, or all the factions get to fighting until there is a deadlock I cannot say. In the meantime the ice-conditions in the Arctic are spoiling the sale and blocking our game all around."

Turning to Sweden. As Norway seemed at the time a hopeless proposition, it became advisable to turn to Sweden, which as had been intimated, was anxious to possess mines independent of England. Turner had already been in communication with Herre Hjalmar Lundbohm of the Stockholm Trafikaktiebolage, who was associated with wealthy men in the management of the Kiruna mines. During the Winter, Herre A.R. Nordvall, a Swede, arrived in New York, and the proposition which he presented was being earnestly considered, when, as if out of a clear sky, came a cablegram from a syndicate newly formed in Kristiania and signed by Kjelland-Torkildsen, President of Centralbanken for Norge, making a definite offer for the Spitsbergen property. It was considerably better than that formulated by the Swedes, and accordingly Mr. Longyear wrote to Herre Nordvall, expressing his regrets

at being compelled so abruptly to terminate the negotiations and offering to pay all the expenses which had been incurred.

The Norwegian Government was apparently exerting some pressure to induce the banks to take up the matter again, and there seemed to be considerable apprehension lest the mines should be lost. This was expressed in a circular which had been sent out some time before by the Central Bank, which said: "The extremely difficult circumstances under which our industries and commercial trade are operating in these times have opened all eyes to the great danger to which we shall be exposed in case the British export of coal should be prohibited or restricted by strikes." It went on to estimate the profits to be realized from the purchase of the Spitsbergen mines, and suggested that each of the five largest banks to which it was directed should subscribe a half-million kroner, the remainder to be raised from steamship companies and other sources. "The matter," it said, "must be decided quickly."

The first proposition was not accepted, nor indeed was a second; but in March an offer was received which included the purchase for an additional sum of 99,000 kroner of the stores left deposited on the island.

Tedious Negotiations. The negotiations were rendered extremely tedious by reason of delayed and often missing mails and of censored cablegrams. At times it seemed as if no progress were made at all. Moreover it was apparent that there was a disposition "to double-cross" the Company. An effort was made to escape from the March agreement, and Mr. Longyear was at first inclined not to press the matter of the stores, provided only the Syndicate would come to a prompt and definite decision regarding certain other details relating to bonus-shares, capitalization, and time and place of payment.

But the affair was so exasperatingly protracted that finally he lost patience and decided to insist on this stipulation. This snag almost wrecked the agreement, but it was ultimately got out of the way. In April, a plausibly-written communication from one of the trespassers was addressed to Kjelland-Torkildsen, rehearsing the claims of that adventurer to the Green

Harbor and also the Advent Bay properties of the Arctic Coal Company, and pretending to incorporate affidavits regarding his priority of occupation. It was a tissue of lies and misrepresentations. Kjelland-Torkildsen sent the letter to Mr. Bryn, the Norwegian Minister at Washington, asking him to secure from the Arctic Coal Company satisfactory proofs of the legality of their claims.

Threat of Calling the Deal Off. Mr. Longyear declined to consider any such protest by a Norwegian whose untrustworthy character was well-known, and informed the Minister that if the purchaser chose to hesitate because of it he would call the deal off. The original affidavits which entirely undermined the elaborate edifice of audacity were at the very time in Saether's safe in Tromsø.

4. THE NEW SYNDICATE

The new Syndicate, which was called Store Norske Spitsbergen Kulcompagni Aktieselskab, had committed itself beyond recall by causing or allowing to be published in several of the Kristiania newspapers glowing articles under scareheads, giving full details of what they were going to do now that it owned the Spitsbergen mines. Knowledge of this still further strengthened Mr. Longyear in his position. He knew they would have to yield.

A Breach of Proprieties. Even before the papers were finally passed, the syndicate sent a gang of laborers up to Spitsbergen in order to be on hand and ready to remove the coal from the stock-pile which had been made a part of the purchase. The Company felt rather indignant at this breach of proprieties, for had the matter fallen through, this expedition would have been guilty of trespass.

The actual conclusion of the negotiations was not consummated until September 1, 1916. The deed, duly executed by the vendors in favor of the Centralbank for Norge, was delivered to the Norwegian Minister, Mr. Bryn, acting for the purchasers, together with all muniments of titles and other documents. He in turn made the payment agreed upon both

in cash and agreement for the stock which was to came to the Arctic Coal Company and Ayer and Longyear. The amount of land transferred consisted of 170 square miles at Advent Bay, 130 at Green Harbor, 50 at Sassen Bay, and the tract at Cape Boheman, a total of more than 500 square miles.

From the consideration received by the vendors was deducted the five per cent commission on both the cash and the stock, generously granted to the optionee, (although his option had expired a year before) in recognition of his services in first opening negotiations with some of the people who later consummated the deal.

The Store Company also bought the Anker claim, paying seven-eighths in stock, and the property which F. Hjorth had attempted to claim. This sale having been consummated, a confidential circular-letter was despatched to the Norwegian stockholders of the Arctic Coal Company, briefly summarizing the history of the undertaking until the year 1914:

Circular-Letter to the Stockholders. "Our work," it said, "had reached the stage where the next step called for a large increase in investment in order to provide the necessary equipment of docks, machinery, buildings, railroads, mine-openings, etc., commensurate with the size of the property. The difficulties in transacting our business due to physical conditions and the distance from headquarters in America were greatly increased by onerous laws and regulations in Norway and then by the conditions created by the great World War. Under the circumstances, it was impossible for us to hope to interest additional American capital at that time. We were prepared to act on the advice of our general manager and shut down operations during the continuance of the War; and the difficulties above referred to and the necessity of providing large additional capital for the property led us to consider various propositions with which we were approached by financial interests of several North European nations. All things considered, the best proposition was made by the Norwegian Syndicate represented by Centralbanken for Norge, Kristiania, to which we have now sold the property, including the

Green Harbor and other Ayer and Longyear properties, arriving at mutually satisfactory terms only after declining two different offers. We believe that in view of all circumstances the sale was a wise one, for the best interests of all concerned in the Arctic Coal Company, and that it was made on the best terms that could have been obtained at the time the bargain was made in March, 1916.

Terms of Sale. "The terms of the sale are:

"Cash	Kr. 1,500,000
"Common Stock	Kr. 2,000,000

"Both items subject to a commission of five per cent, and payment in cash for the warehouse-supplies.

"We consider it peculiarly fitting that this Spitsbergen property should belong to and be operated by Norwegians, as Norway is the natural primary market for the product of this property, and, with the equally efficient management, it should be possible to operate more successfully than from any other country."

Details of the Sale. The circular letter went on to state that the sale included the Ayer and Longyear properties, which, although they had been under option at $60,000 in cash, were treated as if they were part and parcel of the Arctic Coal Company properties, and that although the Arctic Steamship Company, formed by Ayer and Longyear was "an entirely separate corporation, financed independently of the Coal Company, the owners were voluntarily crediting the large profits from its operation and sale in figuring the value of the Arctic Coal Company's stock."

Moreover, Messrs. Ayer and Longyear were offering to give in stock of the new Norwegian Company substantially a dollar and a half for each dollar share of the Arctic Coal Company, so that each Norwegian stockholder was permitted to exchange every block of 270 shares in the old company for 1500 kroner of common stock in the Norwegian company formed by Centralbanken and its associated interests. It was intimated that unless all the Norwegian stockholders accepted this propo-

sition it would probably be necessary, for purposes of liquidating, to sell the Arctic Coal Company by auction, and that, under such circumstances of sale, it was scarcely to be hoped that enough would be realized to leave any substantial sum for the stock when the indebtedness to Ayer and Longyear had been covered.

Mr. Longyear's Farewell. Mr. Longyear, who as president signed the circular letter, concluded with these words:

"The writer will sever his direct connection with the coal-business in Spitsbergen with some regret. In all he has made seven trips to Spitsbergen on business of this Company, for which no charge except cash-expenses has been made. The time consumed by these trips has amounted to more than nineteen months in all, and this does not include the numerous trips to Washington and other places in the United States on business of this company, and no charge for the many weeks of time so spent has been made. Except for counsel-fees and cash-disbursements no charges have been made against this Company for maintenance of the American office, and the compensation paid to the staff of employees in Norway and Spitsbergen has, in the opinion of the undersigned, at all times been moderate for the type of men engaged and the nature of the services rendered. Your company has been fortunate in having most efficient operating heads, and the administration of its affairs in Norway and on Spitsbergen has been conducted with great economy and good judgment."

The Result. The total debt of the Arctic Coal Company as presented to the Norwegian stockholders was more than a million dollars. From this, in accord with the fairness and liberality of Messrs. Ayer and Longyear, were subtracted about $240,000. The total cash proceeds of the sale amounted to a little less than $404,000. The stock in the new company at par was equal to $522,000, and when the indebtedness to Ayer and Longyear was subtracted about $124,000 were left to be distributed to the 94,000 shares of the stockholders. In reality, this was only thirty-one cents above the original par value of one dollar. A sufficient number of the Norwegians

assented to this transfer, and Mr. Longyear directed the bank in Trondhjem to exchange stock of the par value of 66,000 kroner, in denominations of 500, to the stockholders.

Thus ended the active career of the Arctic Coal Company.

Mr. Longyear was on the whole much gratified by the outcome. As is the usual case of pioneer enterprises, no money was made by the pioneers, but there was considerable satisfaction in having opened for the use of mankind an entirely new source of fuel-supply and, apparently, at a critical time when such a new supply may be of tremendous consequence to northern Europe. He regarded it as a wonderfully interesting experience.

6. THE NEW COMPANY

The new Store Company appointed Karl Bay as its general manager. They asked Gilson to return and take charge of the Advent Bay mine; they engaged Saether to act as their representative at Tromsø at an increased salary. They sent Henrik Lund to America to investigate coal mining and to purchase machinery. He was not very familiar with the responsibilities put on him, and he applied to the Arctic Coal Company to get advice, which was willingly granted.

Shipping the Stock-Pile. The Store Company shipped the stock-pile left by the Americans on Spitsbergen and got good prices for it. They sent up a winter crew of miners, but as the War prevented them from procuring additional machinery they had got out by April, 1917, a little more than 18,000 tons, and expected to ship 40,000 tons during the season. They actually had sold 38,000 tons, 18,000 subject to regulation in case the total fell short. The price averaged 100 kroner per ton f.o.b. Longyear City, and from 150 to 160 c.i.f. in Norway.

New Steamers. In order to have their own vessels, the Syndicate bought the steamer *Belgica*, which had been formerly used by the Duke of the Abruzzi and by the Duke of Orleans, and renamed her *Isfjord*, and a small wooden vessel of 700 tons. The first they employed for a time in the Spitsbergen

trade, and then chartered for freighting-purposes and finally sold; the other they sold piecemeal. They summoned a meeting of the most prominent coal-dealers of Norway and held a two days' session in Kristiania, which resulted in a satisfactory agreement regarding price of labor, navigation-facilities, and various other matters of common interest.

The Grumant Company Pays Up. Saether wrote on December 30 that after considerable difficulty and many consulations with the Russian consul he had finally actually received the settlement from the long-procrastinating Grumant Company. He said that they had come to a realization that if they did not keep on correct terms with the Norwegian interests they would be "much worse off than the value of this their small debt." He added that the other Russian outfit in Green Harbor, Levin's company, were taking their Spitsbergen claim so seriously that they had just completed the purchase of a piece of water-front in Tromsø for the purpose of coal-storage. "In view of the fact that they have neither dock, ropeway, machinery, nor a mine on Spitsbergen, they seem to be cheerfull optimists." Their steamer was crushed by the ice in Green Harbor during the Autumn, and the crew was obliged to take shelter for the Winter at Longyear City, where some of them found employment. The Norwegian Government sent up an ice-breaker as a relief-expedition, but could not penetrate the drift-ice blockading all the coast.

British Thumb-Screws. Saether wrote also that the British Government was using its coal to brutal advantage. Norway had to do exactly as England wanted else it would refuse to sell either bunkerage or fuel coal. Practically all Norwegian money, he said, was tied up in ships or coal-using factories, and England was taking advantage of their need. There was a certain kind of food-fish which sold in the open market for a krone and a half per kilo, but England demanded it for 40 øre a kilo, and quietly suggested that if this demand were not complied with, English coal would be kept at home.

The sale of the Spitsbergen mines caused considerable excitement in Norway, and much speculation ensued. The

Store Syndicate felt called upon to address an open letter, which was printed in the "Aftenpost," explaining its own affairs and throwing some light on the affairs of several rival companies. It mentioned "Den Norske Kulfelter Spitsbergen," which had just sent out invitations for increasing its capital to a maximum of three million kroner "built at Bergen" by F. Hjorth, but was not proposing to enter into competition with the Store Syndicate, "as both parties respect their annexions." It also stated that "Svalbard Kulgruber" was preparing to work the fields "annected by Captain Staxrud in 1914 . . . which should be situated *in the bottom* of Advent Bay, and should therefore look partially to be covered by the american much older fields, not acquired by the Spitsbergen Syndicate." Part of it was also identical with the big glacier which was situated in the south end of Green Harbor, and trenching on Anker's acquisition. No work had been done on these properties.

The Norske Syndicate made this announcement in order that there might be no confusion in regard to the invitations issued by the various companies for public subscriptions. There must have been some nervousness at this time regarding investments in Spitsbergen coal-properties, if for nothing else besides the comparatively low price which coal from there was bringing, caused by three years of exceptionally bad ice-conditions.

A Second Bad Summer. The Summer of 1917 began with even worse state of things. As late as July 27 the fjord was frozen out as far as Green Harbor, and not a ship had been able to force its way through the solid pack. It was winter-ice and not like the pack-ice subject to breaking up or melting. The winter had been extraordinarily severe all over northern Europe.

Food-Conditions in Norway. The food-question was presenting tremendous difficulties. Saether wrote that they had "pleasant prospects" of getting no food at all for the coming Winter. "Between Germany sinking all our ships," he wrote, "and England demanding that our ships continue trading in spite of Germany, we are having some trouble all right. The

Swedes are worse off, however. They got up a big company to mine coal on Spitsbergen, and have had two ships in Tromsø harbor now for two weeks, not being allowed to leave port by the British consul. He has sixty men aboard, and [there] is an American mining-man. Talk about an impatient man. Arctic Coal Company had some such, but this one is real interesting listening to. The British Consul asked me the other day something about our company being friendly to British interest. I told him rather to call it 'submissive' and not use so strong a word as 'friendly.' "

A Serious Strike. At Spitsbergen there was a serious strike in July. It was conducted in "very radical syndicalistic ways," and had not the Government taken drastic measures much damage to life and property might have resulted. The Government gunboat *Farm* was sent up with Herre Meinich, the Town Judge of Tromsø, as mediator, accompanied by thirty marines and two machine-guns. After the judge had tried for two days in vain to reconcile the two sides, the officer in command of the marines took charge and formed a dead-line between the barracks and the dock, and posted guards. Then the strikers were taken out in small parties to the ships, and the whole number—one hundred and fifty—were transported back to Norway, the Swedes not being allowed to land but shipped to Sweden. Only one shot was fired, and that to intimidate and not to kill or wound. Saether, in his account of the trouble, wrote that he thought that the Scandinavians behaved remarkably well; he believed that two hundred American workmen under similar circumstances would have dynamited the whole establishment.

"Some people," he went on to say," think the Germans had a hand in causing this strike, but while we in this country are quite willing to believe anything bad about them, I think there was no German money behind it, but that it was a strike started purposely in Norway to force Spitsbergen under organization by the I. W. W. I know for certain that one 'secretary' of the new movement was paid 50 kroner a week in order to devote all of his time to make trouble on Spitsbergen."

As a result the longshoremen, in all the harbors in Norway except Tromsø refused for a time to unload the Company's ships, but the matter was finally adjusted.

Saether's Activity. Saether, as before when he had been the agent of the American Company, set to work to get a new body of miners, and succeeded in keeping the transportation of coal a-going, and by the end of the season he had sent up more than 200 men. In the first lot sent up the syndicalists managed to smuggle some of their number into the crew with the object of fomenting a new strike during the Winter, after the departure of the last boat. This plot was discovered in time, and the disturbers were immediately taken back to Norway. After this action there was no more trouble with the workmen.

Hard-hearted America. Saether thought that America was treating Norway very badly with regard to food and worse with regard to gasoline. He wrote that all the fishing-smacks in the country were without oil for their motors. He felt that this attitude adopted so as to prevent fish from being sold to Germany was playing into Germany's hands. Norway was obliged to sell fish to Germany as long as it was a neutral country, and a refusal might bring about war, in which case the whole Norwegian coast would be occupied.

"The German fleet," he wrote, "may not want to tackle the English, but she would clean up our measly little fleet in just about ten minutes. And now, just think of it! what a serious damage it would be to England and Aferica to have the whole Norwegian cost German! Why doesn't the clear-thinking American brain see that the best possible service Norway can do the world is to refuse to be provoked by Germany into a disastrous war? Germany wants nothing so much as to get us into this war and profit by all Norway's resources. America is worrying about Norwegian fish going to Germany. Why, fish is nothing; there is fish enough in German waters, and before the War Germany hardly consumed any of our fish. She isn't a fish-eating nation, this food now going principally to feed prisoners-of-war in Germany."

A Year's Supply Needed. In the interests of the Store Company he begged Mr. Longyear to see if the American Government would not let them have one year's supply for 300 men on Spitsbergen, for if there was such a possibility they would send one of their own ships for it. Norway sent a food commission to the United States soon after this and made arrangements for the food needed.

The strike considerably diminished the summer-output, but the ice cleared after August 10, and they managed to ship all the coal stored, 24,000 tons in thirty-six consignments. The power-station was enlarged by the addition of a 100 horse-power Diesel motor-plant, but other changes were hindered by the labor troubles.

A Surplus. In November, the miners' mess burnt down. By lively efforts the fire was kept from spreading to neighboring buildings. In spite of these adverse conditions, the Syndicate had good reason to be satisfied with their beginnings. They had a surplus of more than a million kroner for 1917, and were able to pay seven per cent dividend on their preferred shares. The Summer of 1918 showed a great improvement in ice-conditions, and although provisions continued very high, —horse-owners in Tromsø were paying ten cents a pound for hay, and were giving their live-stock cow-bedding (at 40 øre a kilo) mixed with herring made into a mash, and the poor farmers were feeding their cows with sea-weed and cellulose,— prospects looked quite bright.

He wrote that the other companies on Spitsbergen were having what they called a good season, building and getting equipment together. The Russian trespasser Levin, on the Ayer and Longyear property, had got out 2000 tons of coal of very bad quality. Hjorth had bought the English company's plant, and moved what was left of it over to a harbor opposite Longyear City, where he had found a seam of very fine coal—"the best one yet discovered on the island, being six feet. He had not determined its extent or shipped any of it. The Swedes in Bell Sound were operating with forty wintering men. Spitsbergen," he concluded, "is getting to

be quite populated, and we all hope everybody will get back the money they put into the ground."

New Headquarters. Nygaard also wrote the Boston stockholders enclosing the Syndicate's report for the fourth quarter of 1917, which went into rather full details of its operations, and announced that the Board had decided to move the sub-office from Tromsø to some other port in northern Norway where there would be fewer difficulties in storing goods, clearing steamers, and landing coal. They had purchased a new second-hand aërial tram at Salangen, and Gilson was engaged in taking it down for transportation to Longyear City. The Administration was studying the question of rationing the mining-force at Spitsbergen, and trying to institute methods of sound economy.

Mr. Longyear, on receiving the report, replied that he thought that "under the adverse circumstances the financial showing was remarkably satisfactory, and "should be pleasant reading to the holders of securities of the Store Company, and should help to establish a strong position for the shares both preferred and common."

In the same letter he announced the death of his associate, Mr. Frederick Ayer, who had passed on in March, 1918. He thought it likely that the family of Mr. Ayer might like to dispose of his stock-holdings.

Death of Mr. Ayer. Mr. Ayer, who had attained the age of ninety-six, had left mainly to his partner the active management of the Spitsbergen business, nevertheless took a lively interest in it, and gave it the benefit of his wisdom and wide experience. He was a man of distinguished and stately appearance, with abundant white hair and regular features. He kept up almost to the time of his last illness his habit of riding horseback, and those that saw him always turned to watch him as he rode his fine horse, looking like an Arab sheikh. He was of most lovable nature, and preserved his mentality unimpaired, taking an active part in his varied financial affairs, and enjoying much in the society of his wide circle of friends. He was a generous patron of music, and his beautiful house on

Commonwealth Avenue in Boston and his great farm on the North Shore were centers of a genial hospitality.

Death of the Kjelland-Torkildsen. Kjelland-Torkildsen also did not live to realize the success of the Syndicate which he did so much to hinder and to promote. He died on June 9, 1917, at the age of sixty-nine. The Kristiania "Tidens Tegn" (The "Signs of the Times") devoted to his memory a long and eulogistic article with a portrait. Among other things it said: "Kjelland-Torkildsen was a compelling force of rare quality, to the highest degree equipped for just the kind of activities that served for his province, and for the great part which he took in the economic upbuilding of his native land. He was a born financier, and his name was well-known in all Scandinavia, while his reputation extended to the chef centers of European trade."

High Eulogies. After speaking of his courage and ability in forming and carrying out big undertakings, and bringing them to the attention of people in different countries, it went on to say that he was "taken all in all, a personality with broad outlook and with all-embracing dimensions (*med vidt omspændende dimensioner*) in everything that he conceived and undertook. Something also of a dreamer. He had indeed imagination and temperament. He could be fiery in his speech when anything touched his heart: then his thin, energetic, resolute features would be lighted by a gleam of inspiration."

It concluded with the assertion that "he was a useful man for his native land, coming into daily relations with foreign countries, and always increasing Norway's prestige by the impress of his personality . . . Bankchef Kjelland-Torkildsen's pre-eminent qualities will be deeply missed in our economic life, where his intelligent judgment, his loveable, winning personality will be remembered by all that knew him."

Mr. Longyear's Service. Mr. Longyear, after his eminent services in bringing to a high degree of effectiveness the preliminary exploitation of the Spitsbergen coal-fields, was greatly relieved when the burden was taken from his shoulders. The enterprise shown by the new owners, and the results

obtained through the high price of coal in Norway, gave some encouragment that the investment might in the long run prove remunerative. But even though some loss might be entailed, he looked upon it as one of the most interesting experiences of his life.

His connection with it, growing out of an accidental observation made while on a brief visit to the Far North, shows by how slender a thread one may become involved in a great and complicated fabric of vast importance to the welfare of the world. Who would have dreamed that in a desolate group of islands, half way between the North Cape and the North Pole, should lie such vast supplies of the best coal in Europe, and that the No-man's Land, two centuries ago coveted by half the nations of Europe because of its riches in whales, walruses, and seals, and then practically neglected, should have been rendered by a single American adventurer an object of eager desire by these same nations?

Norway's at Last. After the War the papers reported that England had taken possession of Spitsbergen. This was true for a time, but during the Conference at Versailles it was decided that in view of its proximity to Norway and the large investment made there by Norwegians it was only right that it should belong to the country which had steadfastly held by the Allies throughout the long period of agonizing doubt and peril. At the present time the flag of Norway floats above the ice-beleaguered shores of the Archipelago.*

6. THE DRAWING OF THE CURTAIN

When a romance draws near its dramatic ending, the reader is or ought to be eager to know how Fate disposes of the principal characters. "And lived happily ever after" is the traditional epilogue to the old falk-stories of almost all countries. In melodrama the assorted pairs come to the front of the stage hand in hand to receive the applause of the audience.

Prospects of the Future. The Romance of a Spitsbergen Coal Mine—which is Romance only in its setting, for

*See next page.

otherwise it is literally "the cold truth"—may perhaps have a sequel, but as far as America is concerned it ended when the Norwegian purchasers took possession of it. We need merely say that the mine at Longyear City was opened for several years' production but without further development. Deprived of "Yankee" energy and far-sightedness, and confronted by the necessity for enormous expenditures for equipment sufficient to produce coal by the hundreds of thousands of tons,—the only possibility for obtaining even a small return on the investment,—it may be well doubted if the venture will immediately succeed in fulfilling the expectations of the Syndicate. Coal, however, is a vital need in Scandinavia, and although the price may never again reach the abnormal record of nearly 200 kroner a ton which it obtained during the World War, when the stock-pile left by the Arctic Coal Company at Advent Bay alone enabled the Syndicate to pay a first dividend of about seven per cent, nevertheless the time may come when Spitsbergen coal will bring a good remuneration to its exploiters.

One final incident connected with its new management may be properly added. A memorandum communicated by Mr. Longyear ends with a tragic note the Story of the Mine. He says:

"On January 3, 1920, a disastrous explosion occurred in the Number One Mine at Advent Bay. All the twenty-six men and four horses that were underground at the time were killed; the mine was wrecked and set on fire. It was necessary to seal the entrance for several months in order to extinguish the fire, before the bodies could be recovered and the extent of the damage investigated.

"The explosion is supposed to have been caused by the careless use of naked lights which ignited the coal-dust, which is very explosive and covers all surfaces in the mine. Or, it may have been caused by the lighting of a match. Just what caused the explosion will probably never be known.

"During the American régime great care was taken to eliminate the danger of explosion. Only safety-lamps of ap-

"KWASIND" LOADING AT COAL DOCK, ADVENT BAY. FROM THE STOCKPILE

LONGYEAR CITY, FROM THE MINE

proved types were used, and the men were not allowed to carry matches underground. Frequent tests were made for gas, but none was ever found.

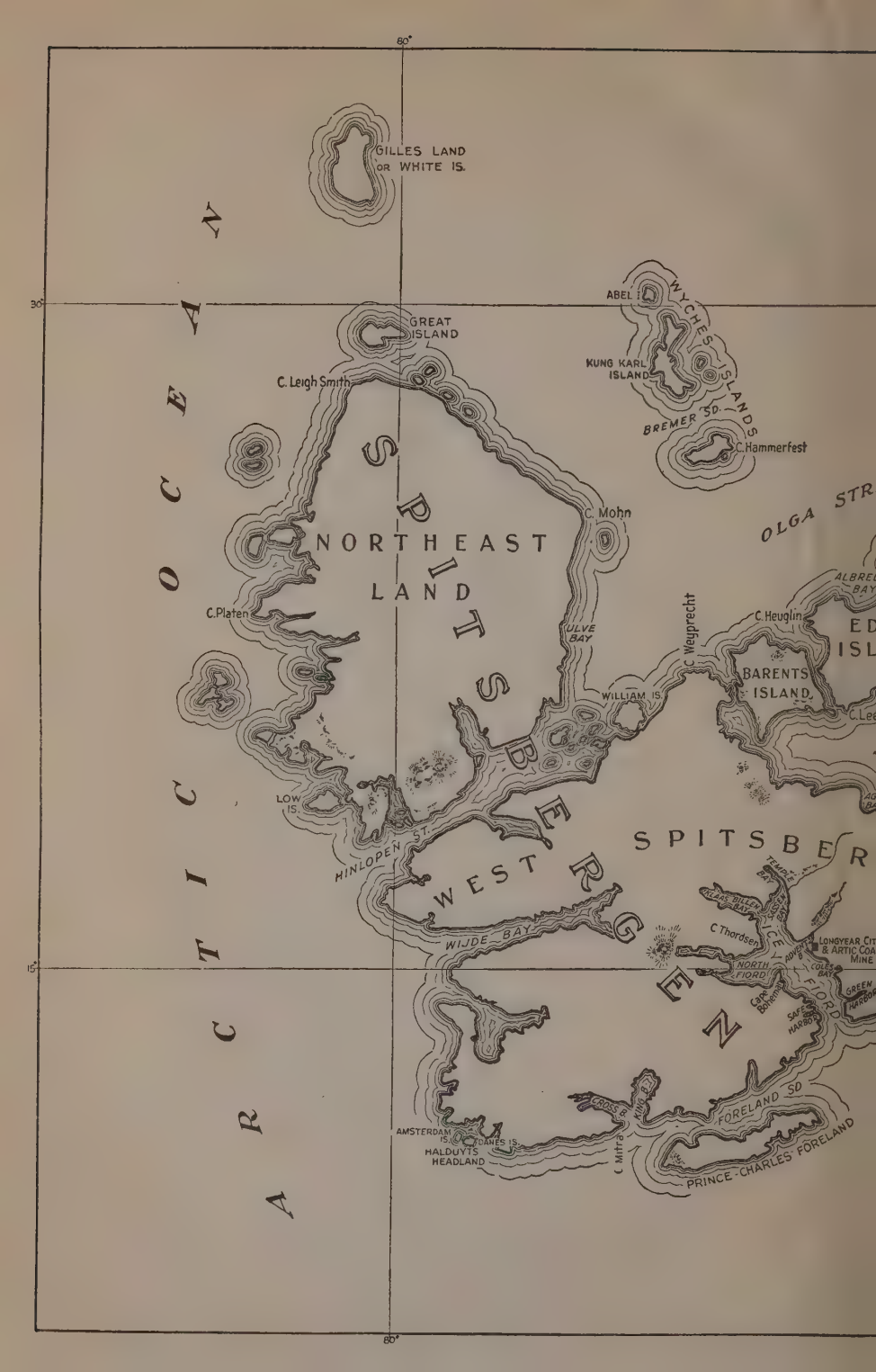
"In the Summer there was always a little moisture in the air which condensed on the rock and coal-walls of the mine in the shape of frost-crystals, and this was an element of safety; but in Winter the air is very dry and no crystals form, thus increasing the danger of explosion.

"The explosion above noted was the only one that has ever occurred in a Spitsbergen mine."

The United States of America has had many occasions for legitimate pride in the accomplishments of its citizens, not only in the intellectual but also in the material affairs of the world. The Frozen North has seen Dr. Elisha Kent Kane braving its terrors in his gallant attempt to rescue, if possible, the unfortunate expedition of Sir John Franklin. Wellman's failure to attain the Pole through the medium of the air, was heroic even though it involved no sacrifice of life. Admiral Peary, of the American Navy, was finally successful in winning the goal which for a century had lured the adventurous of all nations. Many other instances will occur to the recollections of the reader.

No enterprise, undertaken by Americans on foreign shores, exceeds in interest and in possible importance to human beings, the redemption of a vast store of potential warmth and power from the age-long clutches of the Eternal Ice of the Arctic, accomplished by the Arctic Coal Company under the control of Mr. Ayer and Mr. Longyear, aided by their faithful and able engineers. It is a story to thrill and to inspire.

THE END


80°
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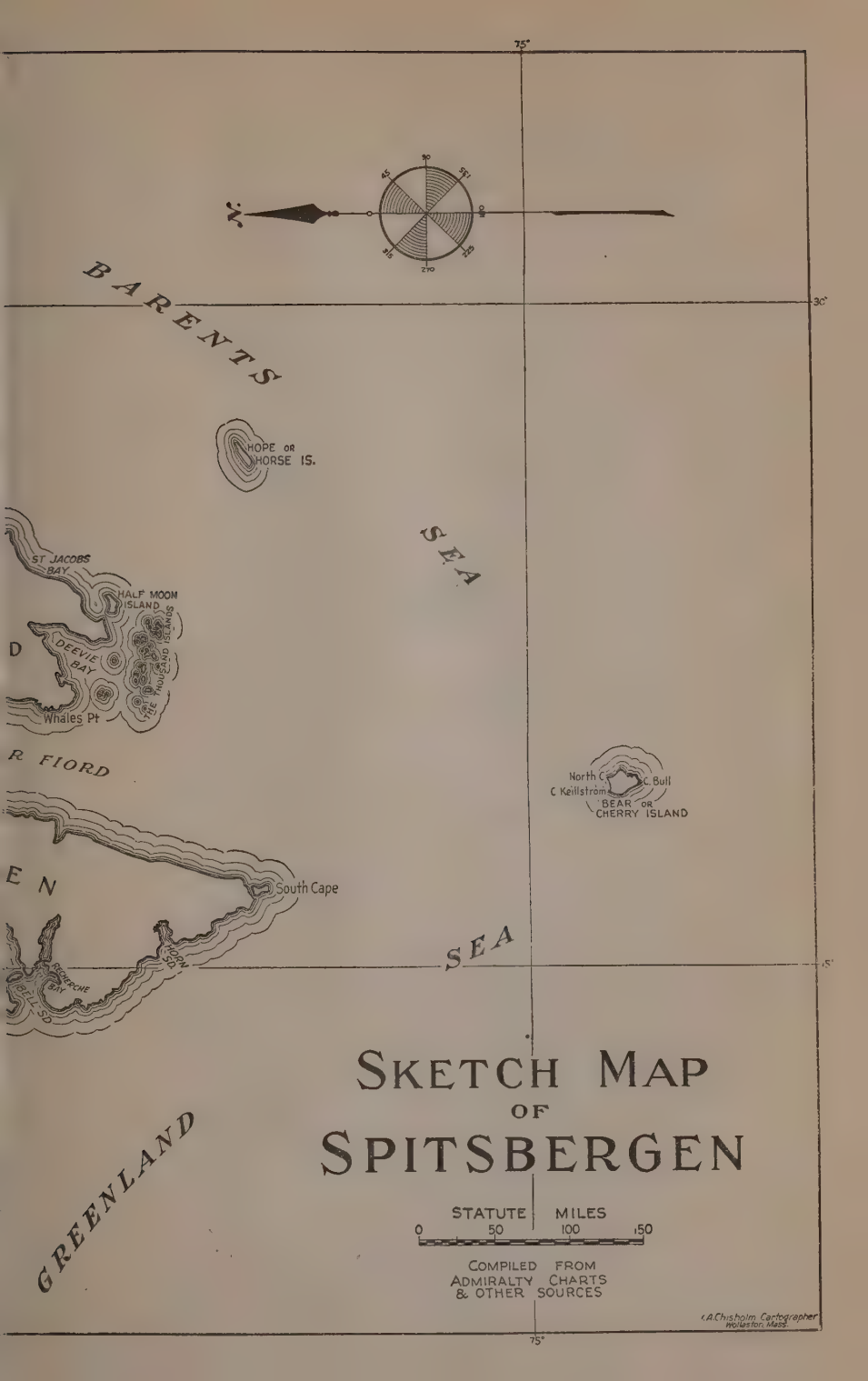
ARCTIC OCEAN
GILLES LAND OR WHITE IS.
GREAT ISLAND
C. Leigh Smith
ABEL I.
WYCHES ISLANDS
KUNG KARL ISLAND
BREMER SD.
C. Hammerfest
C. Mohn
NORTHEAST LAND
SPITSBERGEN
OLGA STR
C. Platen
ULVE BAY
C. Weyprecht
C. Heuglin
BARENTS ISLAND
WILLIAM IS.
LOW IS.
HINLOPEN STR.
WEST SPITSBERGEN
SPITSBER
WIJDE BAY
C. Thordsen
NORTH FIORD
AMSTERDAM IS.
DANES IS.
HALDUYTS HEADLAND
C. Mitra
FORELAND SD.
PRINCE CHARLES FORELAND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BARENTS
SEA
HOPE OR
HORSE IS.
ST. JACOBS
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HALF MOON
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C. Bull
C Keillström
BEAR OR
CHERRY ISLAND
GREENLAND
SKETCH MAP
OF
SPITSBERGEN
STATUTE MILES
0 50 100 150
COMPILED FROM
ADMIRALTY CHARTS
& OTHER SOURCES
A.Chisholm Cartographer
Wollaston, Mass.
75°

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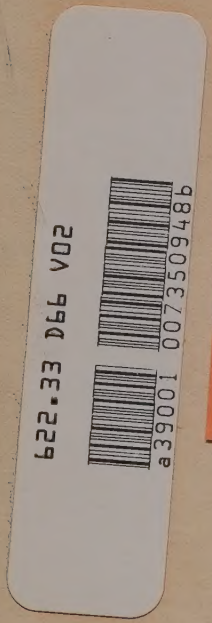
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